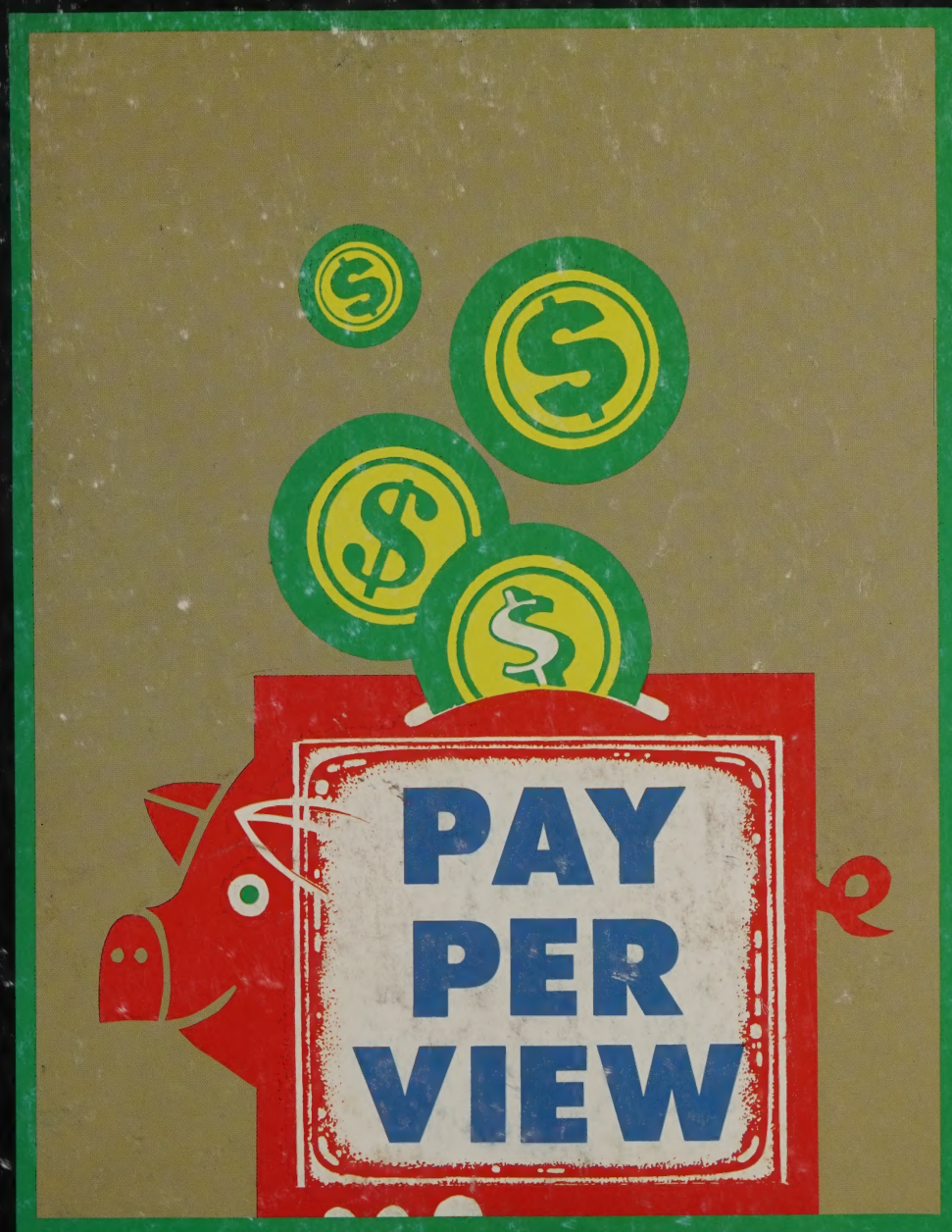


# CATJ

OFFICIAL JOURNAL OF THE COMMUNITY ANTENNA TELEVISION ASSOCIATION  
APRIL 1986



# **IF OLD RELIABLE ISN'T**

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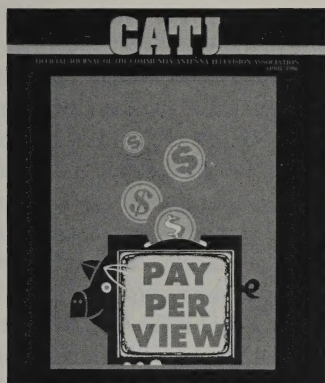
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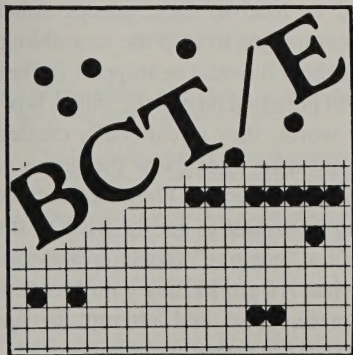
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Carl Schmauder CATA'S CHAIRMAN  
OF THE BOARD

## CONFUSION

**W**hen things start going wrong it's fascinating to see who or what gets the blame. In this case what is going wrong is the home earth terminal industry's sales. It shouldn't come as a surprise to anyone that the HTVRO market is in a tailspin. Sales are reported down anywhere from 50% to 90%. There is no surprise or wonderment in this corner as to why — but the earth terminal dealers, or at least some of them, have apparently been caught totally off guard. Maybe we can help straighten them out.

Home earth terminal sales started to plummet when consumers finally got the message that scrambling was going to be a reality. They got the message from television commercials and news reports, newspaper articles, and, of course, a spate of publicity that spread across the country the day HBO finally "threw the switch" and started scrambling full time on January 15. Up until that point, there were some dealers in the HTVRO business, and certainly their trade and consumer press, fed by their own trade association (SPACE), that were continually telling the public that scrambling in its current form would not happen — Congress would stop it, or a court challenge would stop it, or anything else they could think of to convince potential buyers not to worry about scrambling.

Of course, one of the favorite sales devices was to tell people not to be too concerned because only a few of the "hundreds" of channels would be scrambled. They didn't mention that it was all the most popular channels. Finally there was — and still is, the "black box" routine. You know — ...don't worry, we have a little black box in the back room that will be able to break all the codes, and you'll still be able to get all your favorite programs for free."

Well, the public has found out the truth. HBO is scrambled. The descramblers are in the marketplace and there is every indication that all of the other popular channels will be scrambled within the year also. There were some very telling statements coming out from the earth terminal sellers immediately after the fall. One was quoted as lamenting the fact that he lost four "signed" sales the day HBO scrambled. Well, we can figure out only one reason why he would have had that experience — he didn't tell those "signed" sales that HBO was going to scramble — and when they found out, they decided to take a more informed look at their potential purchase before going any farther. From the consumer's point of view that makes a lot of sense. And those consumers may still decide to buy home earth terminals. But from the sellers point of view it was a disaster — he had been caught in his own efforts to "snow" the public. CATA has been calling it "consumer fraud" for some time now, and that is exactly what it is.

The earth terminal industry, or at least some of its national spokesmen, are now saying the collapse is due to "confusion". They suggest that the "confusion" can only be straightened out with legislation to stop scrambling for a period of time, or at least a stop to the "negative" ads being put out by the cable industry that are "confusing" the public. That is pure nonsense.

The only reason there is "confusion" in the marketplace today is because the HTVRO sellers and their organizations intentionally created it. Instead of cooperating in telling the buying public about the impending scrambling of satellite signals that they wanted to receive, these groups either mounted all-out campaigns to stop the scrambling, told folks that somehow it would be stopped, or they simply lied and told potential buyers the "black box" routine. In other words, they intentionally created the confusion to aid their sales. Now the house of cards is falling down and they are blaming the cable industry for doing its utmost to get the truth to the buying public. It's a "creative" tactic; create confusion and then when it starts hurting your business, blame it on someone else and attempt to use confusion as an excuse to create more confusion!



The entire question of cable deregulation one year after the implementation of the new cable act — and also the proposed “scrambling” bills that have been introduced by a few members — more advertising has said that the Congress is “going to” or is “considering”, or is “working on” a bill right now to stop scrambling. So don’t worry — buy your dish — after all, why buy cable when you can get it for free, right?

Of course, not all HTVRO dealers have participated in this scam. There are some very responsible and reputable dealers, distributors, and publications in the industry. Some of those publications, for instance, have printed articles all along on the upcoming scrambled era. They made no secret of it — and they accepted the HBO ads explaining that company’s position, unlike the majority of the HTVRO press which even refused the ads for fear that their subscribers would find out the truth.

It is those reputable dealers we should be seeking out right now. There is a natural marriage between cable and HTVRO. CATA is looking very carefully at how we can assist in linking up the reputable suppliers, manufacturers and dealers in the HTVRO

industry with the cable operators in their areas so that both dealer and cable operator can structure a profitable partnership. In most cases we suspect this will entail the operator selling and servicing the programming, while the dealer installs and maintains the hardware. But that will not always be the case. There are lots of different permutations that are developing in the marketplace as the real market, the legitimate market for HTVRO, emerges. This is a marketplace where there will be full consumer information on what is going on, and why. It will be a marketplace where programming will be packaged, and available to those who have made a substantial personal investment at a rate somewhat under, we suspect, the rate the cable subscribers pay. It will be a market where cable operators, in conjunction with earth terminal dealers, will probably decide to install HTVRO’s in some areas instead of trying to wire them. It is an exciting new market — one that will grow, and cable operators as well as earth terminal dealers will grow with it — not in confusion, but in cooperation. We look forward to it and expect to help promote it. □

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# P·R·O·G·R·A·M·M·I·N·G N·O·T·E·S

## THE MOVIE CHANNEL PRESENTS ITS "THIRD ANNUAL SALUTE TO THE ACADEMY AWARDS" IN MARCH HIGHLIGHTED BY EXCLUSIVE PREMIERE OF "AMADEUS"

**F**or the third consecutive year, THE MOVIE CHANNEL is presenting its annual salute to the Academy Awards throughout the month of March, earmarked by the exclusive television premiere of last year's Best Picture winner, "Amadeus," starring Tom Hulce and 1984's Best Actor, F. Murray Abraham. The salute will be anchored by a different Academy Award winning film every night and hosted by Hollywood columnist Robert Osborne. Furthermore, Academy Award-winning short subjects, behind-the-scenes coverage, commentaries and interviews with previous Oscar winners Sally Field, Jack Lemmon, and others will be featured.

Winner of eight Oscars at the 1985 ceremony, "Amadeus" will have its television debut as part of THE MOVIE CHANNEL's "Best Picture Winner's Marathon" on March 22-23. The marathon includes three of the last four Best Picture winners — "Amadeus," 1984; "Terms of Endearment," 1983, and "Chariots of Fire," 1981, plus "Rocky," 1976;

"Around The World in 80 Days," 1956; "Hamlet," 1948, and "Cimarron," 1931.

During THE MOVIE CHANNEL's March salute, the gamut of award winning films ranges from "The Candidate" with Robert Redford, which won an Oscar for Best Original Story and Screenplay to "The Goodbye Girl" with Marsha Mason and Best Actor Richard Dreyfuss. Other films include "Norma Rae," which copped Oscars for its star Sally Field and its Best Song, "It Goes Like It Goes," and "Camelot," which won a pair of Academy Awards for Art Direction and Music Adaptation. There will also be a "Foreign Film Winners Festival," including Ingmar Bergman's masterpiece, "Fanny and Alexander," and an additional festival called, "Hollywood Classic of the Week" each Saturday featuring such films as "The Third Man," with Joseph Cotten and Orson Welles.

Osborne, an acknowledged film expert and unofficial historian of the Academy Awards, is the anchor of THE MOVIE CHANNEL's "The Heart of Hollywood," an 8-minute magazine-style program. He is well-known as **The Hollywood Reporter's** "Rambling Reporter" and a respected film historian and author of many books on Hollywood and motion pictures, including a history of the Academy Awards.

THE MOVIE CHANNEL's "Third Annual Salute To The Academy Awards" epitomizes the pay-television service's promise of presenting a wide variety of movies plus an in-depth look at the world of movies on the only nationwide all-movie network.

\* \* \* \* \*

## HBO LAUNCHES 1986 TELEMARKETING CAMPAIGN Year-Long Effort Expected To Reach 600,000 During First Quarter

**B**ased on the success of telemarketing used to support the HBO/Cinemax® "All Star Summer" and "Get It All Super Fall" promotions last year, Home Box Office, Inc. is launching a comprehensive telemarketing campaign with affiliated cable systems this year. The effort will focus on pay-upgrade campaigns throughout 1986, with HBO and cable systems using the services of three outside agencies.

Matthew Blank, HBO senior vice president, consumer marketing, said HBO this year has more than doubled its 1985 budget for telemarketing activities. "After nine months of testing and conducting telemarketing programs



# P.r.o.g.r.a.m.m.i.n.g N.o.t.e.s

with affiliates in support of last year's promotions, we found overall conversion results were so impressive that telemarketing will play a critical role in our marketing efforts during 1986," he said.

According to Blank, last year's telemarketing activities resulted in an overall average 9.5 percent sales-to-contact rate in upgrades from single pay to dual pay, a 7.5 percent increase in basic only to single pay and a 6.6 percent increase in homes passed (who were former pay subscribers) to single pay. To encourage sales, systems offered an installation discount and, in several cases, a clock radio or camera.

Steve Janas, HBO director, corporate marketing, who is currently heading up this effort, said HBO is presently using third-party companies in New York and Denver to perform the telemarketing calls. He estimated that call volume capacity will be from 150,000 to 300,000 calls per month. It is expected that more than 600,000 subscribers will be solicited through telemarketing programs during the first quarter of 1986. HBO and its affiliates are billed only for each installed HBO or Cinemax order. The cost to cable operators is \$10.

According to industry research, telemarketers can contact roughly 30 times as many prospects and make 14 times as many presentations as direct sales reps. "It is also a more personal approach than direct mail and allows for the

representative to answer the customer's questions," Janas added.

HBO and cable operators work together in developing localized telemarketing campaigns. The cable system provides subscriber lists as well as information on pricing, packaging and installation schedules. HBO provides scripts, assistance in training telephone sales reps at the third-party agencies and an analysis of results when the campaign is completed.

Janas estimated that a list with 80,000 names would take about four to six weeks to cover. Four attempts are made to reach each person listed.

Cable operators who participated in HBO's telemarketing activities last year report significant upgrade results. Jones Intercable of Jefferson County, Col., for one, cites the fixed cost per sale as a major advantage in running a telemarketing campaign through a third party. Liz Johnson, area marketing manager for Jones Intercable's Colorado systems, said, "With an outside agency, we are charged only for each new install order. Telemarketing has definitely proved successful for us, and we were really pleased by the positive results we received everywhere we tried it."

February, 1986

## ACQUIRED

### ESSEX EIGHT-FIVE TWO CORP.

a limited partnership  
of Greenwich, Connecticut  
has acquired

### MACON CABLEVISION, INC.

serving 2,080 basic and 725 pay t.v.  
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# Program·ming Notes

Johnson noted that Jones' Jefferson County system ran a telemarketing campaign in August and September, contacting "basic only" and "basic and one-pay" subscribers. The overall average achieved was a 15.7 percent sales-to-contract rate.

Another MSO, Daniels and Associates, Inc., tested centralized telemarketing campaigns in two Daniels systems last September and October. George Barnard, national sales director, said the campaigns resulted in an overall average sales-to-contract rate of 13 percent.

"The results of these tests helped us to move forward in developing our own MSO-wide telemarketing operation," Barnard said. "Generally speaking, telemarketing, if designed with proper controls in place, can succeed in achieving cost-effective and positive results."

HBO is also developing a new telemarketing training seminar scheduled to be made available to cable operators in June. This effort will augment HBO's current on-the-spot training support for telephone service representatives and telemarketing supervisors.

\* \* \* \* \*

## TLC AND MSN SIGN PROGRAM DISTRIBUTION AND ACQUISITION AGREEMENTS

Four informational series formerly seen on the Modern Sat-

ellite Network (MSN) have been integrated into The Learning Channel's schedule. Under a separate agreement between MSN's parent company, Modern Talking Picture Service, Inc. (MTPS) and The Learning Channel (TLC), MTPS will act as a representative of TLC in acquiring programming for inclusion in the cable program service.

The agreements were announced at a news conference held here today by TLC President Harold E. Morse and Executive Vice President Robert J. Shuman, and Robert A. Kelley, vice president of Modern Talking Picture Service, Inc.

"We are delighted to welcome MSN programming to our lineup. All four are excellent series, well-suited to TLC's lifelong learning and informational focus," Morse said. The programs, which will air on TLC from 1-2 pm ET on Tuesdays, Wednesdays and Thursdays, are "Business View," "Consumer Inquiry," "Modern Life" and "Let's Travel!"

Shuman, who has direct responsibility for program acquisition, added that TLC looks forward to a very beneficial long-term working relationship with MTPS in the acquisition of new programming. "In addition to being the world's largest distributor of sponsored film and video programs, MTPS has a special focus on education, as does TLC. That shared interest in educationally-oriented programming makes our

association a natural one."

The Learning Channel, which just passed its fifth anniversary as a cable program service, reaches more than 6.5 million cable homes in the U.S., Canada and Puerto Rico.

TLC currently delivers 10 hours per day (6am - 4pm ET) of programs that fall into four major categories: formal and informal lifelong learning through academically-based telecourses; business and career development series; creative pastimes programs; and programs that assist parents and teachers in all phases of child-rearing and childhood education.

## Art in Nature, Nature in Art

Sherry C. Nelson, painter and Master Teacher, expresses her feelings about her art: "Capturing birds as realistically as possible, placing them in a setting characteristic of their natural habitat, holds a special challenge for me." There's a certain magic about the way Sherry meets this challenge with **Sherry Nelson's Magic Brush: Painting Birds** beginning Wednesday, February 19 at 11:00 am ET on The Learning Channel. (Programs will be repeated Fridays at 1:00 pm ET and Sundays at 10:00 am ET.)

When in 1976 she first began painting birds, Sherry was stimulated by the excitement it created among her students. As she improved her skills, she began to see the limitations of painting from photographs. It was then that



# P.r.o.g.r.a.m.m.i.n.g N.o.t.e.s

Sherry began birdwatching: "I bought a pair of excellent binoculars, took sketch pad in hand and went into the field as countless wildlife artists before me have done. I mark that decision as a turning point in my painting ... and in my personal involvement in the world of birds."

Birdwatching, or "birding," continues to enrich Sherry's art, giving each subject the "form and felling" of that particular species. In **Sherry Nelson's Magic Brush: Painting Birds**, she skillfully and patiently communicates this ability to her viewers.

This is Sherry's first time on television and The Learning Channel is proud to have the exclusive first release of this 13-program series.

## Great Decisions '86

Beginning March 26, The Learning Channel will premiere **Great Decisions '86**, a series of eight half-hour programs that give viewers the chance to find out what U.S. policymakers are doing about some of the most important issues facing this nation.

Airing on Wednesdays at 3:30 pm ET and repeating on Fridays at 2:30 pm ET, the series is based on **Great Decisions**, a briefing book by the editors of the non-partisan, nonpolitical Foreign Policy Association. Each program is an analysis of one of eight critical foreign policy issues.

Edwin Newman, award-winning journalist and nationally syndicated columnist, is the modera-

tor for these discussions that bring together experts with different perspectives and different views on each topic.

Programs include such subjects as "Democracy in Latin America: Focus on Argentina & Brazil," "Israel & the U.S.: Friendship and Discord" and "Religion in International Politics: Why the Resurgence?"

## Bring The Outdoors In!

Ron Shearer, host and producer of **The Great American Outdoors**, has chosen a wonderful slogan for his continuing series: 'We Bring The Outdoors In.' That's exactly what Ron does for

viewers every Sunday at 10:30 am ET on The Learning Channel.

**The Great American Outdoors** is filmed entirely in the United States, Canada, and Mexico and encompasses fresh and salt water fishing, big and small game hunting, and special feature programs concerning outdoor activities, such as Formula 1 Boat Racing and White Water Rafting.

Informative and educational, the series is successful largely because of its host. Ron Shearer is one of the top ranked professional bass fishermen in the United States. In March of 1982, he scored a major victory on Lake Okeechobee, Florida — a world record ▶

February, 1986

# SOLD

## BOWLING GREEN CABLE TV, INC.

serving Bowling Green, Florida  
has been sold to

## CENTEL CABLE TELEVISION CO.

of Chicago, Illinois

The undersigned represented the seller in this transaction.  
This notice appears as a matter of record only.

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one day catch of 36 pounds, 8 ounces which headed Bass Angler Sportsman Society's record list.

Mixing his professional expertise with a contagious love for the outdoors, Ron's ability to give advice on everything from fishing tackle to outdoor safety is a valuable asset for his audience and a part of every program.

Although the series is billed "for sportsman," it's also fun for those interested simply in nature. Each program features lots of beautiful outdoor scenery and Ron points out the specific attractions of the day's location. His enthusiasm and humor will have viewers longing to be out on the water or roaming the hills. They won't be able to wait till the next program when **The Great American Outdoors** brings "the outdoors in!"

## The Excitement of Business

Wendell Webb, executive producer and host of **Enterprise USA**, believes that the world of business is an exciting one. He's enthusiastic about conveying this message to his viewers Wednesdays at 8:30 am ET on The Learning Channel. (The program is repeated Sundays at 1:00 pm ET.)

Webb's relaxed, intelligent presentation is a far cry from those who promise financial success with little effort. He has designed **Enterprise USA** with the consumer in mind. Each week, Webb satisfies the audience's curiosity about products and services in the financial marketplace. Viewers learn of alternatives as guests on

**Enterprise USA** offer differing perspectives on the topic of the day. Further information is available if viewers have additional questions — an address for this purpose is provided during each program.

This season, Webb brings more variety to the series with three new segments: Shelter Showcase covers the housing market; Consumer Product Update keeps viewers informed about the latest products on the market; and Personal Touch calls on Webb's depth of experience and personal contacts in the business world to provide the inside stories behind business leaders and their sometimes rocky roads to the top.

Another new feature on this season's edition of **Enterprise USA** is a one-minute spot specifically directed toward those who have less than \$25,000 to invest. Printed material about the mortgage market will be sent to those responding to the spot.

\* \* \* \* \*

## HBO ANNOUNCES NEW SERVICE TEST

**M**ichael Fuchs, chairman and chief executive officer of Home Box Office, Inc., announced that the company will begin test marketing a new pay-television service in March. The announcement was made in an address to the Washington Cable Club on Thursday, February 6.

"Festival,"™ the working name

selected for the new service, is designed to appeal to consumers who have never subscribed to basic or pay television before, as well as those who subscribed to and disconnected pay services because current pay offerings did not correspond to their tastes in entertainment. In addition, Fuchs announced that Larry Carlson, senior vice president, Cinemax and new business development, will have overall responsibility for Festival.

The idea for Festival, according to Carlson, came out of more than a year of extensive consumer research indicating that there is room for incremental growth in pay television by programming and marketing a single pay service that appeals to a known and yet unserved audience group.

"The goal of this new service is to grow both the cable and pay categories without eroding any existing base," he said. "Our research showed that an unfilled niche exists in current cable and pay product offerings."

The programming to be featured on Festival will include all-time favorite classic films as well as some of today's most critically acclaimed current theatrical films. Additionally, it will present some of the most popular foreign films and movies made especially for pay television. Also featured will be top quality entertainment specials selected for Festival's audience. Festival will be on the air 19 hours a day, seven days a week, from 7 a.m. to 2 a.m. E.S.T.



# Program·ming Notes

In order to learn as much as possible about programming, pricing and marketing variables, HBO's research effort will continue as it tests the service in a group of ATC systems. These systems, representing a variety of locations and sizes, expressed an interest in Festival and volunteered for the test. Additionally, a number of other companies have expressed an interest in Festival and may be added in the second or third quarters.

Fuchs and Carlson said the company will be looking closely at the results over the next nine to twelve months "to learn the right keys for successfully growing our business among people who have never tried pay TV."

"It is incumbent on Home Box Office," Fuchs said, "as the leader in pay television to try and find ways to grow both the basic and pay-television categories. Festival represents a part of HBO's research and development commitment designed to achieve these goals."

\* \* \* \* \*

## SHOWTIME/THE MOVIE CHANNEL INC. FUNDS CREATION OF SUDDEN INFANT DEATH SYNDROME PUBLIC SERVICE CAMPAIGN Cable Industry Mobilizes For SIDS Fund Raising Effort

A public service announcement for the National Sudden

Infant Death Syndrome Foundation has been produced by SHOWTIME/THE MOVIE CHANNEL INC. and is being distributed in 60 and 30 second lengths to cable and broadcast outlets nationwide.

Print and radio ads are also currently in production to further raise awareness of SIDS and solicit contributions for the research effort.

Numerous satellite programmers, cable operators and program guide publishers have all come forward to support these efforts by volunteering air time and ad pages. SHOWTIME/THE MOVIE CHANNEL will run a special

satellite feed of the :60 and :30 PSA every Monday in February at noon eastern time on the Galaxy 1 satellite, transponder 16 for cable operators and broadcasters to tape for local insertion.

Two out of every 1,000 live births in the United States will succumb this year to SIDS, a tragic phenomenon with no known cause or prevention. Its victims, usually between the ages of one week and one year, simply stop breathing in their sleep.

SHOWTIME/THE MOVIE CHANNEL's involvement was triggered by the SIDS death in October of 16-month old Stephen Howe, son of Jane and Rick ▶

March, 1986

# ACQUIRED

## TARLEN COMMUNICATIONS

of Coquille, Oregon  
has acquired

## DUNES CABLE T.V.

serving Hauser and Saunders Lake, Oregon

The undersigned represented the buyer in this transaction.  
This notice appears as a matter of record only.

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5401 W. Kennedy Blvd.  
Tampa, FL 33609 813/877-8844

1255 23rd Street, N.W.  
Suite 650  
Washington, DC 20037 202/857-2535



COMMUNICATIONS  
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# Programming Notes

Howe, who is SHOWTIME/THE MOVIE CHANNEL's Vice President of Affiliate Marketing. Cutbacks in federal funding have seriously impaired research, service and education on SIDS, and previous public service campaigns

have not generated significant public support. The Howes, therefore, enlisted SHOWTIME's support and the resources of other contacts throughout the industry to launch a national public awareness campaign.

SHOWTIME/THE MOVIE CHANNEL engaged the services of Action Productions to produce this spot because of the extensive public service experience of their director Bob Siegler, who has directed PSAs for "Save The Children," "Phoenix House," "N.I.H.'s High Blood Pressure" campaign and others.

The PSA is currently running on CNN, CNN Headline News, Superstation WTBS, VH-1, Lifetime, CBN and WNEW-TV in New York. In addition, ad pages for the print ads have been donated by the cable program guides **Premium Channels, Cableview and Cable Today**. Daniels, Cox, Storer, Metrovision and ATC are among the multi-system operators who have pledged to distribute the PSAs to their systems for airing in hundreds of local markets nationwide.

Viacom International, SHOWTIME/THE MOVIE CHANNEL's parent company, will attempt to further distribute the PSA through its television syndication division. In addition, SHOWTIME/THE MOVIE CHANNEL's public relations department is attempting to further raise awareness to this important cause through the placement of SIDS experts on radio and television talk shows.

The proceeds from the campaign will go into research and programs under the auspices of The National SIDS Foundation, a non-profit Maryland-based organization dedicated to finding the causes of and



When you put money down for cable amplifiers, they should stay in the running. Bet on Triple Crown to go the distance; from the head end, down the mainline, all the way to the viewer, with a proud finish.

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**TRIPLE CROWN**



**ELECTRONICS**

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(416) 629-1111

700 West Hillsboro Blvd.  
Deerfield Beach, Florida 33441  
(305) 429-0870



# P.r.o.g.r.a.m.m.i.n.g N.o.t.e.s

prevention for SIDS and to providing emotional support to the families of SIDS victims, and educating involved professionals on all aspects of SIDS.

Tax deductible contributions may be sent to:

**The National SIDS Foundation**  
**8240 Professional Place**  
**Landover, Maryland 20785**

Copies of all PSA materials may be obtained from SHOW-TIME/THE MOVIE CHANNEL INC.

\* \* \* \* \*

## **WVL MAKES TECHNOLOGY AVAILABLE TO CABLE OPERATORS**

**W**orld Video Library Inc.® (WVL), the innovator in pay per view, announced that for the first time its well-respected impulse ordering technology will be available for cable operators to use in conjunction with other pay per view movie operations.

"The cable industry's current need for an automated impulse order entry system and operators' strong interest in 'The Impulser'™ led WVL to this decision," said WVL President, John W. Ratliff.

"WVL will continue to market its own total pay per view service, 'The Home Video Club', to those systems with the capacity to provide multi-channel pay per view. We want to put the excitement of the video store in the hands of the subscribers, but we recognize that what we believe is clearly the best approach to pay per view is not

feasible in every system. WVL has had a strong commitment to help cable operators pursue new revenue sources and believes the market is large enough to support different types of pay per view. WVL feels its technology will help insure the success of pay per view.

"Along those lines, WVL also is talking with the other pay per view suppliers about how to provide impulse pay per view on a national basis.

"**'The Impulser'** is an ancillary addressable unit that gives two-way capability to a cable operator's current one-way addressable converters. WVL's Impulser system

works with any one-way addressable converter. This self-contained unit plugs into the subscriber's standard modular telephone jack with no connection to the existing addressable converter.

"Subscriber orders can be placed automatically in seconds, 24 hours a day, without the effort of frustration of a telephone call. Cable operators do not need special personnel involved in the ordering or billing, allowing for a more profitable and efficient pay per view system," Ratliff concluded.

For more information contact WVL at 2747 Airport Freeway, Fort Worth, Texas 76111. (817) 831-3811.

March, 1986

## **SOLD** **KENNEDY CABLE OF FLORIDA, INC.**

serving 2,000 basic and 500 pay t.v. subscribers  
in eastern Polk County, Florida  
has been sold to

## **CENTEL CABLE TELEVISION CO.**

of Oak Brook, Illinois

The undersigned represented the seller in this transaction.  
This notice appears as a matter of record only.

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# WHY YOU SHOULD USE A BROKER FOR BUYING OR SELLING YOUR CABLE SYSTEM.

**1. SAVES TIME.** A broker experienced in the communications industry, such as CEA, knows who the active buyers are and what criteria they use in evaluating a cable system. In representing sellers, a broker is effective because he has researched potential opportunities, and has access to them on an ongoing basis.

**2. SAVES EFFORT.** A tremendous amount of time can be wasted in talking to unqualified prospects. A broker can prequalify prospective buyers quickly. In representing buyers, we focus on only prospective opportunities that meet your criteria. Through long-term experience and extensive knowledge, a broker knows, in most cases, who to eliminate from consideration as a prospect, as well as what additional prospects might be interested in a given opportunity. That's what CEA does every day for our client's.

**3. SAVES MONEY.** Large amounts of corporate funds can be spent in pursuing prospects that are not qualified. You can significantly reduce legal and accounting fees by using a brokerage firm that has in-house expertise in these fields available for the benefit of their clients. Often these savings on legal and accounting fees approach the cost of commission charged by the professional broker/investment banker.

**4. REALISTIC EVALUATION.** One of the biggest problems a seller faces is not knowing what the current market value should be for their system. Rules of thumb are generally meaningless to a sophisticated buyer. A broker can provide you with a realistic idea of prices you can expect to receive for various properties. If you are a buyer, your broker can advise you of the market price and structure of a prospective acquisition.

**5. ORGANIZED APPROACH.** A broker approaches the sale of your property in an

organized manner. We work full-time at buying and selling cable systems, and therefore have an established, successful method and strategy for handling sales. The very nature of our business of assisting buyers and sellers has given CEA outstanding expertise, industry experience and national presence. We maintain contacts and relationships that have taken years to develop.

**6. PROFESSIONAL BROCHURE.** The selling document is critical. A professionally-prepared brochure, or memorandum of information — plus related professional presentation methods — requires a substantial amount of expertise to develop. It is more than a compilation of information. It is a selling tool. A poorly prepared brochure or one that lacks sufficient detail can not only result in delays in the sales process but also can result in a loss of prospects.

**7. INSPECTIONS.** An experienced, trained broker is familiar with all points of interest and



concern to the sophisticated buyer. The broker shows the system in a realistic and positive manner that turns buyers' objections into buyers' reasons. Moreover, it is important for sellers to realize that the main reason people buy is because they believe there is an opportunity for overall system improvement and increase in cash flow. It is much easier for a third party to address these issues than the principals or management.

8. **NEGOTIATIONS.** Maximizing the after-tax gain is more of the game. An experienced broker will have a thorough knowledge of tax implications. Preferably the brokerage firm employed will have a CPA, as in the case of CEA, who is a specialist in cable-related tax situations. Since taxes are like an algebraic equation, in fact, the consequences are different to buyers and sellers. Price is usually significantly affected by the tax structure. In addition to these considerations, negotiating is really the fine art of selling. In essence, negotiations are a series of compromises leading up and continuing through the offering process.

9. **STRUCTURING AND VALUING THE OFFER.** Careful consideration must be given to directing the offer or offers along lines which achieve the goals of the buyer and seller. An offering price means little unless the structure is acceptable. Frequently, in a sellers market where there are several serious prospects, the offers will be varied. A qualified broker works

with the seller's accountants and attorneys to fairly evaluate all proposals. This often entails not only the tangible aspects, but also intangible considerations. The broker is able to assist the seller in selecting the best bid.

10. **LETTER OF INTENT.** Once the offers are analyzed and one is selected, the normal course of events is for the buyer to submit a letter of intent to the seller. CEA will assist in developing this letter, which is an outline setting forth the proposed transaction. The broker also makes sure, at this point, that both parties clearly understand the proposal so that no major misunderstanding occurs at the subsequent purchase agreement stage.

11. **NEGOTIATING THE LETTER OF INTENT AND/OR PURCHASE AND SALE AGREEMENT.** All time, money and effort expended to this point can be in vain unless the buyer and seller enter into a legally-binding purchase and sale agreement. Frequently, when the details of the transaction are set forth, concessions may be requested by both parties. Experienced brokers are familiar with many different types of purchase and sale agreements, as well as some of the major pitfalls, and how to reduce them. The broker is of great assistance in assuring that an agreement is realized.

12. **PRE-CLOSING.** After the purchase agreement has been executed, many items remain to be accomplished, including franchise transfers and approvals. The broker stands ready to

provide assistance to the buyer and seller in all these matters through, and including, the closing.

13. **THE CLOSING.** Often problems arise at closing that can delay or even terminate a deal. A qualified broker can minimize these problems by working with attorneys for both parties to make sure that all details are covered before the closing date.

14. **OTHER CONSIDERATIONS.** By using a professional broker, the seller can be assured of having the sale handled in a confidential manner. This is good business practice, not only to avoid alarming and/or losing key employees, but also to avoid problems with franchise authorities or competitors. A brokerage firm that provides well-handled investment banking services can be of assistance in arranging financing for a buyer when necessary, or assisting a seller in certain aspects of estate or tax planning. If the seller is to later seek other reinvestment opportunities in cable, the broker can provide assistance and guidance.

In selecting a qualified broker, it is important to choose one with experience, an industry-wide reputation of integrity, and personnel with a wide variety of expertise. The fees should be competitive, but it is inadvisable to select a firm solely on the basis of its fee schedule — since the best brokers will earn their fee many times over in maximizing the price and minimizing taxes and other costs.

It is essential to employ a

broker under a mutually agreeable contract which has been carefully reviewed by an attorney. Never employ a broker on a verbal contract, and never provide information on your company to someone who claims to represent a buyer, unless you have a letter from the broker which clearly indicates that the broker has been employed by the buyer. If you fail to do this, and your system is sold, you may have unwittingly placed yourself and/or the buyer in danger of litigation.

Most reputable brokerage and investment banking firms will refuse to handle a transaction on a nonexclusive basis. Nonexclusive agreements are "hunting licenses," which lead to confu-

sion among prospective purchasers as to who legally represents the seller; lack of control, whereby your transaction is widely shipped; frequent misrepresentation; completing claims for fees; lack of confidentiality, etc.

It is better to retain a reputable broker on an exclusive basis under a contract which requires indemnifications from the broker against any disclosed third party claims. Such agreement should prohibit co-broker and/or co-finder agreements without the express written consent of the seller.

In conclusion, the old Chinese proverb, "He who treats himself has a fool for a doctor," can easily be applied to selling a

cable company. Mergers and acquisitions of businesses require a very high degree of sophistication in order to maximize the results. It will pay you many times over whether buyer or seller, to retain a qualified reputable broker and/or investment banker to provide assistance. The cost, in terms of fees based on success, is small relative to the importance and magnitude of your transaction. The cost of failure, on the other hand, can be devastating. □

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# Something New

## REGENCY ELECTRONICS ADDS NEW PRODUCTS TO THEIR LINE

### Non Volatile Memory Enhances Set Top Converter Features

**Regency Cable Products** introduced an enhanced version of its RE-1 set top converter.

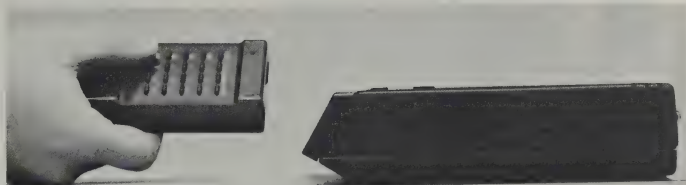
This new addition to the Regency Classic Series, called the RE-2, has the advantage of small size and low power consumption as well as a non-volatile memory to increase the range of available features.

RE-2 is equipped with parental control which is protected by using a small padlock on the rear panel selection switch and an access code. One of nine (internally) incorporated tuning standards, is selected by a special hand held infra red programming/test unit. This feature enables the cable system operator to transfer units between systems without opening the set top unit or changing programmable chips.

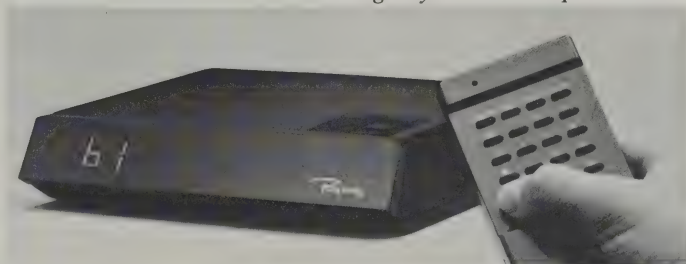
The Regency model RE-2 is a 78 channel digital IR remotely controlled converter covering a frequency range of 50-550MHz.

Favorite channel and last channel recall are popular features among subscribers. The wall mount power supply has 115V relay controlled auxiliary output to power the subscribers television set.

AB cable operation is available as an option with the roll over being programmable via the IR



*Regency RE-1 Set Top Converter*



*Regency RE-2 Set Top Converter*

programming capability of the portable programming test unit.

The reduction in power dissipation, discrete component count and physical contacts, together with both MOV and cap-restor protection, substantially enhances product reliability. The Regency Classic Series is backed by a two year full warranty.

### Unique Design Establishes New Standards In Set Top Converters

**Regency Electronics** has introduced the first in a new line of set top converters known as the Regency Classic Series. Through a unique design concept, Regency has been able to reduce the size and power consumption of the set top unit and establish new standards for the industry. The volume is less than 100 cubic inches in a unit only 1.75" high and has a power dissipation of only 7 watts.

The model RE-1 is a 66 channel digital, IR remotely controlled

converter covering a frequency range of 54-450 MHz. Features such as, add/delete, enable channel skipping which eliminates snow and blank channels. Favorite channel and last channel recall are popular features among subscribers. The RE-1 handles standard and HRC tuning by means of a rear panel selector switch. AB cable operation is available as an option. The reduction in power dissipation, discrete component count and physical contacts together with capacitor protection substantially enhances product reliability. The Regency Classic Series is backed by a two year full warranty.

For further details contact John R. Shaw, Regency Electronics, 1-800-428-5000 or write to:

Regency Electronics, Inc.  
Special Cable Products  
7707 Records Street

Indianapolis, IN 46226-9989





## BILLING SYSTEM FOR PAY TV

### WHAT WENT WRONG?

Update - by Ken Simons

It seems appropriate, in 1986, to reprint the following paper presenting Don Kirk's then-practical pay-per-view system, written in 1959. It is appropriate because the question needs to be asked, what went wrong? Had the cable industry recognized **then** the basic advantage of pay-per-view, as opposed to any other form of billing, the

history of cable, and of entertainment in America, might have been different! Instead of having a small piece of the pie, you, the cable system operators, might have had almost the whole thing!

Why pay-per-view? Because, in the long run, it provides the best service at the least cost to the customer, and, in the long run, it makes more money for the system owner. Once he gets it he can gain control of his program sources. He can generate an entertainment distribution system that is so perfectly adapted to the real wants of the viewer and the listener that it replaces almost all the other sources of programming. He can become king of the mountain (one of Johnny Walsen's, perhaps)!

How would you like to have all the income now going to TV Broadcasting, as well as most of the money spent on video and audio recordings? It seems quite certain that you would be approaching that point in 1986 if you had made the right choice in 1959. Certainly some people will go out



*Pictured at left is an early day picture in the Jerrold lab showing the late Hank Arbeiter, Vice President, Jerrold Electronics (standing) and author Ken Simons, Chief Engineer for Jerrold, discussing design aspects of a new product.*

to the movies, some will want to own tapes or discs. Most of them will be happy to enjoy these things at home if you make it possible.

The question as to why the cable industry acted as it did in the early days is an interesting one.

Certainly one major factor was the "connection charge". In the very early days cable was needed so badly that customers would pay \$125 just for an initial connection! It was a money tree! Hundreds of millionaires were created overnight. Those millionaires, and the others that followed, always had that money tree in view as their major goal. They have always viewed cable as a way to make a fast buck, and nothing more. They thought of it not as a utility intended to serve people, but as an investment with a quick return.

The second major factor was the attitude of the cable equipment manufacturers. Instead of acting like the makers of utility equipment, they handled their products as if they were bubble gum, hula-hoops or new cars. Their object, year after year, was to come out with "new model", and then sell, sell, sell! There was no research, and no planning that looked forward more than a few months. As a result the industry gradually got frozen into the technically static situation it is in today.

It probably isn't polite for an engineer to say it, but **YOU SHOULD HAVE LISTENED TO YOUR ENGINEERS**. Engineers certainly don't know everything, but it is in the very nature of engineering to plan ahead. Where do you think all those new ideas come from? Did you ever have a sales department that came up with a better way of tapping a cable, or testing leakage?

The sum total of the money spent on Cable Conventions over the last 35 years is a fairly large number — many, many millions of dollars. Had a fair part of that money been ploughed back into research, you would now have a facility, perhaps not **quite** as big as Bell labs, but adequate to meet the needs of the future. There is now a serious question as to whether you **have** a future, chiefly because of the lack of that facility!

Can you do anything to correct this situation?

One suggestion is that you play close attention to a technology that you have dangerously neglected — the light pipe. There are many books and articles on the subject. One, in particular, relates directly to cable. The editors of CATJ have a copy of a monograph, written in Switzerland by Heinz Brand, one of the most capable CATV engineers in Europe.

Heinz, in less than 100 pages, does a careful study on the most economical way to bring TV to the Swiss, ten years out. He concludes, with figures to prove it, that a star network, with light pipes is the right answer. If there is sufficient demand for this publication, the editors of CATJ have agreed to make it available to you.

There would be no point in changing the present system if it were doing a good job. Hardly anyone thinks it is, it's fairly clear that a pretty large proportion of the American people aren't happy with TV.

What's wrong with it?

What's wrong with having baby's bottoms and feminine hygiene shoved down your throat at breakfast? What's wrong with being subjected day after day to mindless insults to your intelligence?

One of the best features of the light pipe is that it solves the copyright problem once and for all time. With a solid, impregnable connection to a completely enclosed and protected receiver there will be no more home copying of copyright material.

A much larger part of what the public pays for entertainment will then go to the creative people who provide it. They deserve to be paid, and they deserve to have the results of their efforts protected.

We'll need a new receiver. It **must** be internationally standardized so we can freely exchange programs with all other countries. It will have at least 100 stereo channels so everyone can listen in his own language. The resolution will equal that of a good 35 mm movie. Something ►

---

like the PAL system will be used, so we get away from NTSC "Never Twice the Same Color". And it will work at around 60 cycles to avoid flicker. The exact frequency doesn't need to relate to the power line any more, since receiver hum is no longer a problem.

The new star-network switched system will provide a choice of many thousands of audio and video channels, so everyone can watch what he wants at a time that suits him.

The consumer's monthly entertainment bill will undoubtedly rise a little, especially if he insists on

seeing all the latest movie releases and Broadway shows. The drop in his other expenses will help to offset this. Relieved of the burden of TV advertising the price of food, cars, and soap, will drop considerably!

If the cable industry will wake up and smell the roses, you may, even at this late date, play a major role in this new world!

I must acknowledge the patient help of my son Kurt and my dear friends Gerry Lenfest and Ike Blonder, who made me beat this introduction into reasonable shape!

---

## PROGRAM-BY-PROGRAM BILLING SYSTEM

---

by: Ken Simons, Chief Engineer, Jerrold Electronics Corporation

*(Delivered at the convention of the Society of Motion Picture and Television Engineers,  
Miami Beach, Florida, May 4-8, 1959.)*

### INTRODUCTION

It will probably not surprise you to learn that the billing technique to be described in this paper involves distributing Pay TV by cable. As a major manufacturer of equipment for wired TV systems, Jerrold has held the position for a number of years that Pay TV can be realized most effectively with cable distribution. Some of the advantages of cable over the "Scrambled Broadcast" approach are:

**Cable provides an additional service.** One of the most serious questions regarding "Scrambled Broadcasting" is whether the public would permit the loss of a free channel to obtain Pay TV. When a cable system is used to add a new service, the public loses nothing.

**Cable provides a "Return Circuit".** Signals can be transmitted in either direction, from the central office to the subscriber, or back from the

subscriber to the office. This paper will describe one way in which signals transmitted from each subscriber's home can be received at a central point as a way of collecting billing information.

**Cable provides a secure service.** It is economically practical to hold radiation from a cable system to levels where unauthorized pickup is impossible. It can be made secure from mechanical tampering by installing all electronic equipment outside of the subscriber's home. The system to be described makes it impossible for him to receive Pay TV signals until he throws a switch which records his willingness to be billed for them.

### PAY TV - Ken Simons

In comparing the cost of cable distribution as against the "scrambled broadcast" approach, it is fair to point out that cable requires less electronic and mechanical equipment at each home and this saving can pay for some of the cable system.



Block Billing  
FIGURE 1

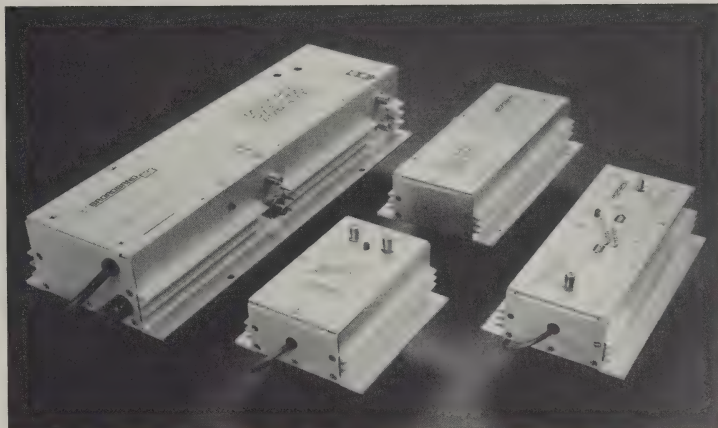


## THE BILLING METHOD:

Before proceeding to a description of the PBPB system, consider several of the possible ways in which program billing could be accomplished. There are many ways in which money can change hands, all the way from grand larceny to time payments, but the following cases seem to apply to the Pay TV situation:

## THE "NO-PAY NO-SEE" METHOD

Since the days of Simple Simon and the Pieman, the philosophy of "Show me first your penny" has been a highly satisfactory way of charging the customer for anything from bubble



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CATJ

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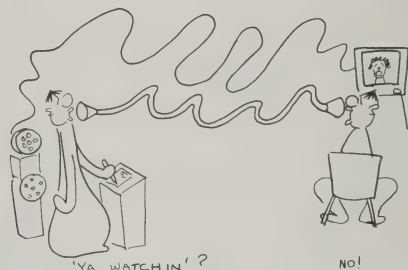
gum to Cinerama. Discussions concerning the taste of the gum, or the excellence of the show are much more happily carried out (from the sellers viewpoint) when he has the money in his pocket.

### "BLOCK BILLING" - Figure 1

Block Billing is the economic basis of the Symphony Orchestra. Before the beginning of the season, a large number of its "customers" subscribe - that is, pay in advance - for what they are confident will be an enjoyable series of concerts. This is a delightful situation, from the sellers viewpoint. He not only gets paid in advance; he gets paid a considerable time in advance. Unfortunately, this works well only in a situation (like the Symphony Orchestra) where most of the customers agree as to what constitutes a "good" program. A Pay TV system must serve people with a wide variety of tastes. When the premium programs are selected to suit one part of the audience, and to convince them that their monthly billing is money well spent, another part will become unhappy and cut off the service. Although this way of billing is most economical, requiring no equipment and a flat rate per month - "Block Billing" places a tremendous burden on the programming department.

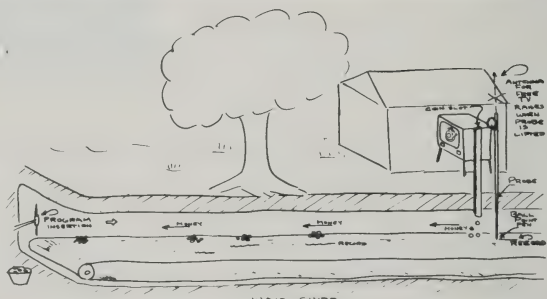
### "PROGRAM-by-PROGRAM" BILLING (PBPB) Figure 2

This kind of billing forms a major, and successful, part of our everyday economic life. This is the department store charge account, the home telephone, the credit card. The customer selects what he wants, uses it, and pays at the end of the



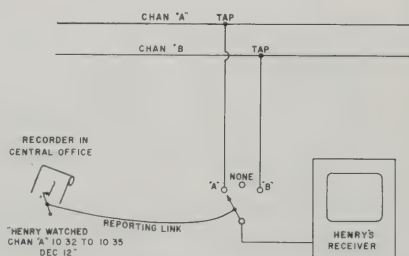
PBPB A

FIGURE 2



PBPB B

FIGURE 3



Essential Elements

FIGURE 4



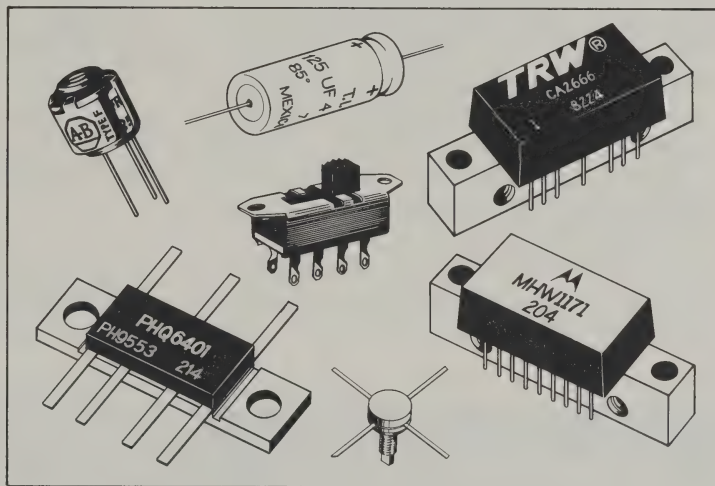
**PROGRAM-by-PROGRAM  
BILLING IN A CABLE PAY TV  
SYSTEM — Figure 3**

Two basic functions must be provided:

- The essential elements of such a system are diagrammed in Figure 4. The subscriber has a switch which allows him to select any one of the available programs. A reporting link controls a recorder at each

While the data from such a simple system might be very useful for analyzing customer viewing habits, they are not a convenient basis for sending out bills. The subscriber and the system operator would have to

agree on a "Set of Rules" specifying how much of a program could be watched before a charge was made; and the data would have to be analyzed in these terms. There would be endless complaints about the "fairness" of the bill.



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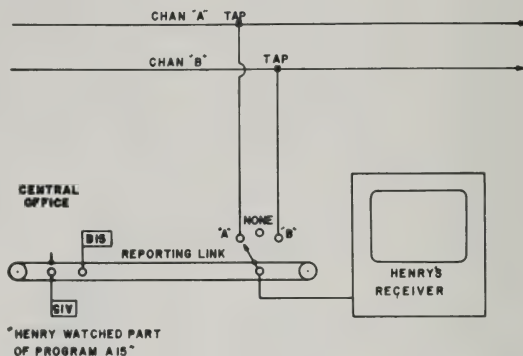
For more information, call  
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## "THEATER TICKET" REPORTING — Figure 5

An improved situation results when a "memory" is attached to the reporting link. At the beginning of each billable program the operator sets the memory (pushes the flags upright). If the subscriber switches, even momentarily, to either program, the memory is tripped (flag swings down). At the end of the program, the operator merely counts the number of down flags, and bills accordingly. This creates a "Theater Ticket" situation. As soon as a subscriber switches to a program he "buys a ticket." He may go into the theater (tune his receiver). If he doesn't like the program he can then leave the theater (turn off his set) or even buy another ticket (switch to another channel). Having done this he may then enter either theater (tune to either channel) at will without further charge until the end of the show when the "theater is cleared". Billing is very straightforward, the only step necessary to prevent



PBPB with Memory

FIGURE 5

subscriber unhappiness is to be sure he understands that he will be billed for the entire program as soon as he switches in on any part of it.

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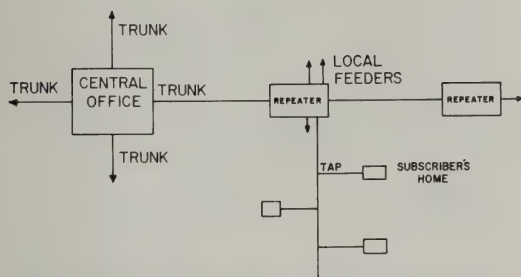
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## APPLICATION OF THIS TECHNIQUE TO A CABLE SYSTEM

This method of billing is the basis of the PBPB system that has been developed at the Jerrold Laboratory. To understand how it operates consider first a typical Cable Distribution system (Fig. 6). Programs originating from local live or film cameras, or from telephone lines are modulated onto R-F carriers at the Central Office. These signals are distributed through Trunk lines to all sections of the city. Since the Trunk cables have loss, repeater amplifiers are necessary at intervals along the Trunk, as dictated by the population density, Local Feeders are tapped off, usually with bridging amplifiers. One of these feeders runs along each street where potential subscribers live. When someone subscribes to the service, a tap is connected to the feeder and a cable is run into his home.



Typical Cable System

FIGURE 6



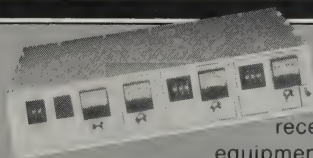
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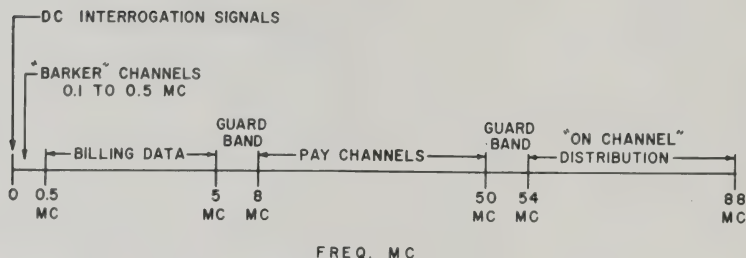


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POSSIBLE FREQUENCY ASSIGNMENTS  
FOR A PAY TV SYSTEM

FIGURE 7

### FREQUENCY ASSIGNMENTS — Figure 7

Such a cable system is in effect a "hunk of ether" which the operator has carved out for himself. Since it is shielded from the rest of the ether, he can use any frequencies he chooses without interference to others. The only practical limitation on the use of frequencies is set by the loss characteristics of the cable. The loss of the cable increases with frequency, and practical considerations indicate TV channel 6 (88mc) as a good upper limit. A possible set of "Frequency Assignments" for a Pay TV system are illustrated in Figure 7. If any "free" channels are distributed, they are handled at normal "low-band" frequencies between 54 and 88 mc. In a "pay only" system these channels could be left out, with a reduction in system cost.

The band between 8 and 50 mc is set aside for Pay Channels. The upper limit is decided by the need for a guard band to allow for filters below channel 2; the lower limit is rather arbitrarily set at 8 mc. This is low enough to allow for seven Pay channels, which seems more than adequate, and still leave plenty of room for the "billing" channels.

The return signals from individual subscribers are assigned the band from 0.5 to 5 mc. In this area there is space for a large number of narrow channels, and the cable losses are low, allowing for low-powered transmitters.

Frequencies below 0.5 mc including audio but not dc, are reserved for program transmissions from the Central Office. One possible use is a "Barker" channel which carries advertising concerning Pay programs in progress.

In the proposed billing system dc signals are used to interrogate the subscribers. These signals are sent over separate wires from the central office to the various sections of town where they are applied to the coaxial cable system.



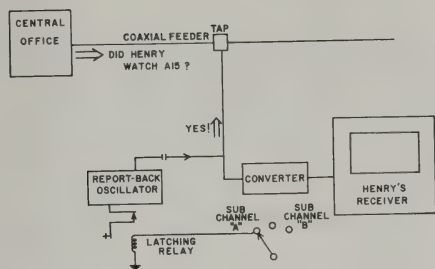
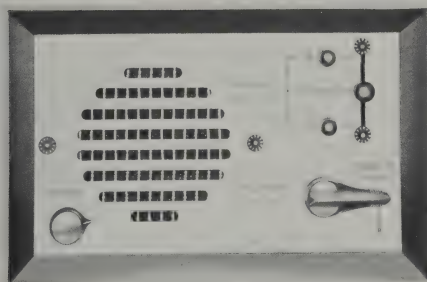


FIGURE 8



Subs Switch Box

FIGURE 9

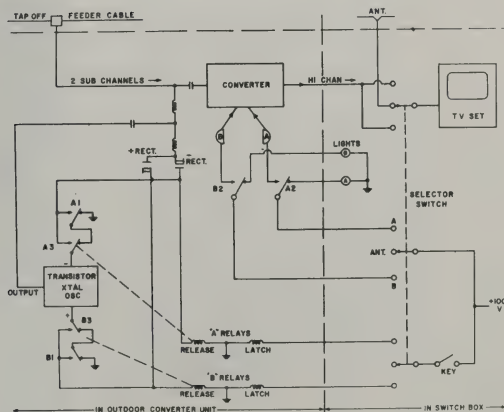


FIGURE 10

## INTERROGATION AND REPORT-BACK IN A CABLE SYSTEM

With the various channels that have been described, many schemes could be developed for collecting data. The one we have developed for this purpose is sketched in Figure 8. At the beginning of a given program a DC signal is transmitted from the Central Office which releases all latching relays and "clears the theater". When a customer switches to a given channel, the corresponding relay is latched, and a low-powered oscillator, crystal-controlled to a frequency assigned to that subscriber, is connected into the system but not turned on. The relay stays latched whether he switches off that channel or not. At the end of the program an interrogation signal is transmitted asking, in effect "Did you watch this program?" This signal keys the oscillator into action, and the reception of its transmission at the Central Office says "Yes."

Figure 9 illustrates a Subscriber's Switch Box. It contains, on the left, a loudspeaker and volume control for the Barker channel. When he wishes, the subscriber can turn up the volume and listen to program announcements, incidental music or whatever the operator may wish to transmit over this channel.

With the Channel Selector on "ANTENNA" his receiver is connected to his outdoor antenna. Should he decide to watch Pay program "A" he throws the switch a "A" and an indicator lights. This says in effect "You are about to be billed for a Pay program, are you **sure** you want to see it?" If he is sure, he presses the Program Control Switch, the light then goes out, and he can receive the pay program by tuning his receiver to some designated channel. (Nothing is received on this channel unless he has gone through the switch operations.) This unit can be provided with a key switch, so that it cannot be operated by children or unauthorized people.

The latching relays and electronic gear associated with the switch box are located in a weatherproof box mounted outside of the subscriber's home, so that they are inaccessible to

the customer but can be reached by system technicians for repair or testing. An understanding of the operation of these two units is essential to an understanding of the system. Figure 10 shows a simplified schematic diagram, omitting the "Barker" circuits.

When the selector switch is on "ANT" the receiver input is connected to the antenna, and no other circuits are activated. Turning this switch to "A" lights lamp "A" through the back of relay contact "A2". It also connects DC to the key switch, so that, when it is pushed, the "latch" coil of relay "A" is energized. This moves contacts A1 and A2 to positions opposite to those drawn on the diagram.

Two sub-channels carrying the Pay TV programs are tapped off of the feeder cable, and are present at all times at the input to the Converter. When contact A2 closes, plate power is supplied to "A" oscillator, and the converter operates, producing an output signal corresponding to channel "A" but converted to a channel to which the receiver can be tuned.

Channel "A" is interrogated by applying a negative voltage of 20 volts to the center conductor of the feeder cable. This voltage is passed by the negative rectifier, goes through contact A1 and operates the crystal oscillator. The oscillator's output is applied to the cable and constitutes the "yes" response. Although this 20 volts is applied to the "A" release coil the relay is adjusted so it does not release at this level. At the end of the program on "A", the operator clears all the "A" relays by applying a DC voltage of -40 volts to the cable. This goes through the negative rectifier and operates the release coil on "A" relay. Either of the "A" channel signals are negative and are blocked by the positive rectifier from having any effect on "B" relay. The "B" channel interrogation signal (plus 20 volts) and the clearing signal (plus 40 volts) affect the "B" relay but are blocked from "A" by the negative rectifier.

One other feature is built into the converter unit, allowing a periodic check on the operation of the crystal oscillator. At night, or at any time when no Pay TV program is being transmitted, the system operator can turn on all the oscillators in

the system so that, by checking for reception on all assigned oscillator frequencies, he can be sure they are all operating normally. This is done with the same signal that clears the relays. When for example, the plus 40 volt "B" clearing signal is applied to the cable, current flows through the positive rectifier, and through the release coil of "B" relay. This coil not only releases the latch but also operates contacts "B3", connecting the positive terminal of the oscillator to the positive supply. Thus, as long as a release signal is applied to the line, all the oscillators oscillate.

### CENTRAL OFFICE OPERATION:

**Origination Equipment:** A function of the Central Office with which this paper is not specifically concerned is the origination of programs. In our prototype system two sub-frequency channels are used, one between 8 and 14 mc and a second between 20 and 26 mc. A normal TV channel arrangement is used, with the sound carrier at the upper edge of the channel, allowing the use of a simple converter to produce a normal channel 8 signal. The "Barker" channel uses narrow-band AM at 262 Kc.

**Receiving and Recording Equipment:** The "reporting" oscillators in our system use frequencies between 0.5 and 2.5 mc. At these frequencies cable losses are so low that a smaller transistor oscillator can provide a receivable signal at the central office from the most distant point in the system. The selectivity of the Central Office receiver was determined by the characteristics of a readily available crystal filter, and it allowed 1 kc channel spacing with adequate discrimination between channels. There are about 2000 1 kc channels between 0.5 and 2.5 mc. (actually a few less because of channels made unusable by IF beats and strong local broadcast signals). 2000 is not the maximum number of subscribers, larger cities being handled by dividing into sections, each one containing less than 2000. The DC keying signals are applied to one section at a time, so that, although there may be several subscribers in different parts of the city with the same frequency assignment, they are separately identified because they are keyed on at different times.



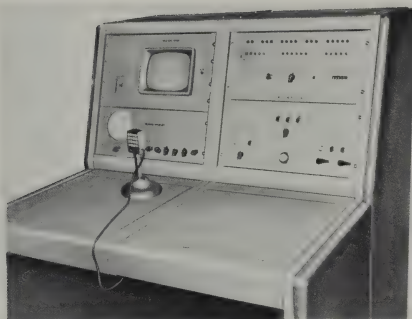


FIGURE 12



FIGURE 13

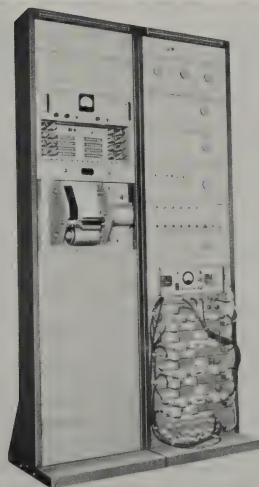


FIGURE 14

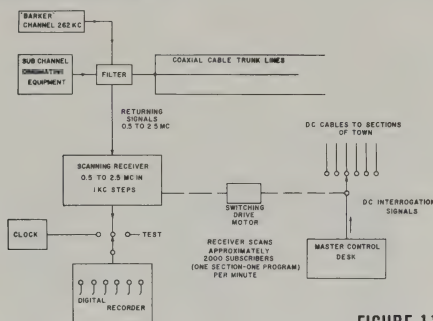


FIGURE 11

Figure 11 shows a diagram of the Central Office receiving equipment. The sequence of operation is as follows: Some time ago programs ended on both channels. The Master Control operator pressed keys applying "release" signals (minus and plus 40 volt impulses) to all sections of town and all relays were unlatched.

Now customers have been watching the programs, and the time has come to find out "who" and "which program". The operator first records a test signal, to test the recorder. He next records a signal from the clock, and then initiates a scanning cycle on channel "A". The equipment switches "A" interrogation signal (-20 volts) to the first section of town, then the receiver scans channel by channel from 0.5 to 2.5 mc. As each returning signal is received, the recorder prints a code which records these facts:

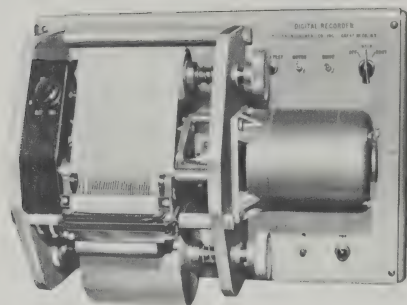
The program: Program A

The section: First section of town

The subscriber: Frequency of received signal

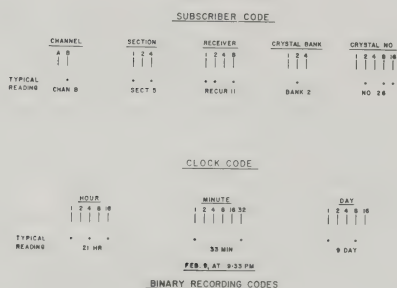
The equipment then applies "A" interrogation signal successively to the other sections of town and records returns. When all sections have been checked for "A" response the cycle stops, and the total number of viewers on "A" is indicated on the Totalizer. The operator finally switches to "B" and the same sequence of events is repeated on channel "B". Our prototype equipment scans 2000 subscribers in one section for one program in about a minute. A complete report on 10,000 subscribers with two programs would take about 10 minutes.

Figure 12 shows a photograph of the Master Control console in the Central Office. On the left



Digital Receiver

FIGURE 15



Typical Receiver

FIGURE 16



Data Control Panel

FIGURE 17

is the Audio control panel for the Barker channel and the Video Monitor with a switch for channel selection. On the upper right is the Data Control Panel on which lights indicate, in binary code, the numbers being printed on the recorder at any instant. The System Operating Panel on the lower right-hand side includes the controls and switches which determine the operation of the recording system; it is shown in greater detail in Fig. 13. Figure 14 shows the two racks of equipment involved in the scanning and recording functions. On the left is the Potter Digital Recorder, with its driving amplifiers and the power supplies. On the upper right are the motor-driven rotary switches that control section switching and receiver scanning. In the middle of the rack are 128 crystal oscillators (4 banks of 32 oscillators each) that determine the receiver frequency. Below them are four of the receiver units.

Figure 15 shows a close-up of the Potter Model 960A Recorder. It has 30 styli which record on Teledeltos electro-sensitive paper. A 20 volt input pulse on any one of 30 inputs produces a dot in the corresponding position on the paper. The applied inputs record information according to a prearranged code. After a coded number group is recorded, the paper is advanced about a sixteenth of an inch to await the next number group.

Figure 16 illustrates typical recording. The upper diagram shows the dot pattern corresponding to a subscriber frequency of 1838 kc, in section 5, tuned to channel B. The channel code is obvious; the other codes are binary. The left hand dot having a value of 1, the next dot 2, the next 4 and so on. Thus the section code reads 1 plus 4 or 5; the receiver code reads 1 plus 2 plus 8 or 11; "Crystal Bank" reads 2 and "Crystal No." reads 2 plus 8 plus 16 or 26. In our set-up receiver 11 when operating with the 26th crystal in bank 2 was tuned to 1838 kc.

The same recorder prints a code indicating the time, as shown on the lower part of Fig. 16. The code illustrated shows a time of "21 hours, 33 minutes, 9th day" or 9:33 pm on the 9th day of the month.

Figure 17 shows the way this data shows up on the Data Control Panel of operating console. The



selector switch has been thrown to the "Readout" position, and at the time shown in the photo the receiver scanning has reached the same position which was diagrammed: i.e. Channel "B", section 5 receiver 11, bank 2 crystal 26.

The Totalizer in the lower right-hand corner indicates, at the end of the reporting cycle on each channel, the total number of "yes" replies, i.e. the total number of receivers in the system that are tuned to that channel.

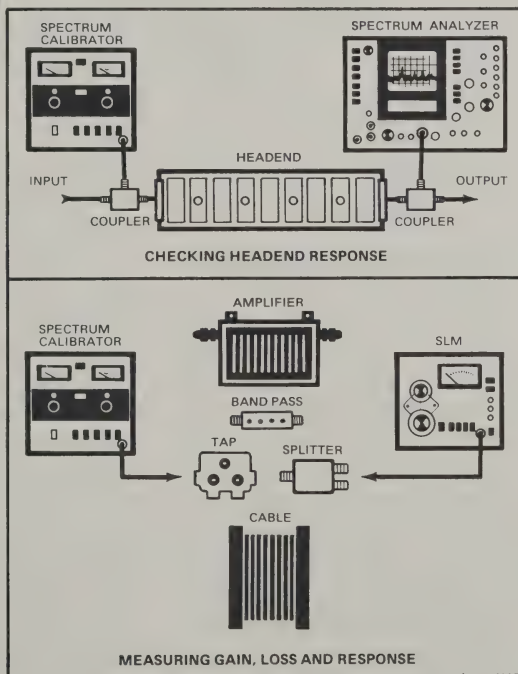
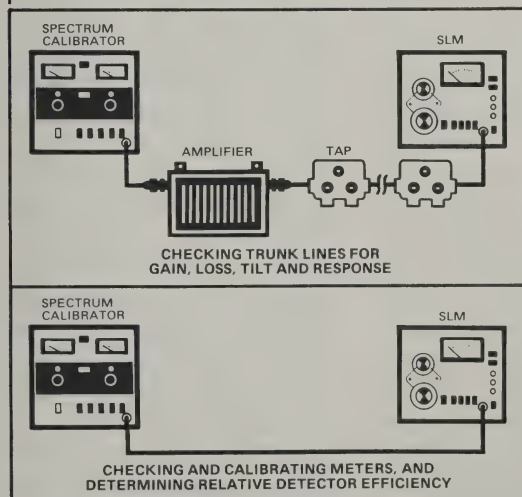
The equipment described and pictured here was built to show that the operating principles chosen for this system are sound. It is not at present in production, but it can be made available when a need develops. Mr. D. Kirk, formerly with Jerrold, now with the Philco Corporation, was responsible for the basic conception of this system and for supervising its development. He was ably assisted by John Nardonantonia, Alden Leiby and Ray Williams. □



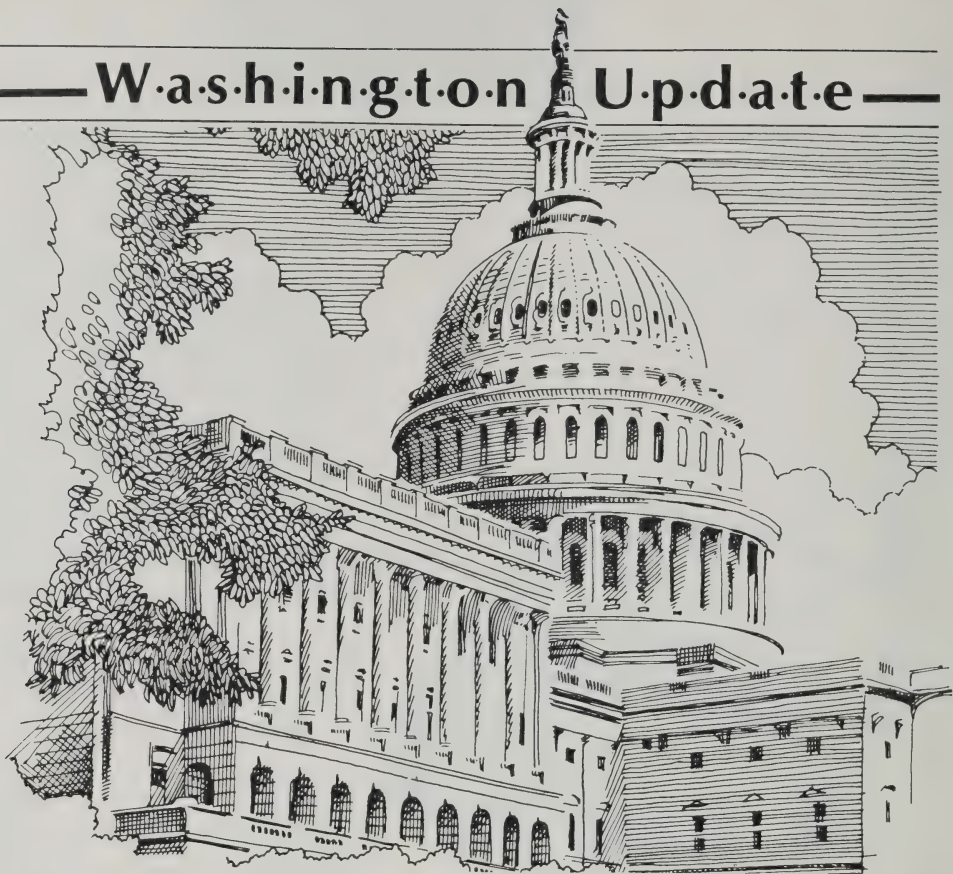
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## THE “MUST CARRY” DEAL— WHAT AND WHY

**T**he cable industry has agreed to a “deal” regarding the “must carry” rules that are now being considered for adoption by the FCC. CATA was part of that deal. The “what”, “why”, and “how” of this strange turn of events is what we will deal with in this issue. The full text of the agreement between the broadcasters — the National Association of Broadcasters (NAB), the Association of Independent Television Stations (INTV), and the Television Operator’s Caucus (TOC) — and the cable industry, represented

by CATA and the NCTA is reprinted here so that you can make up your own mind about how the deal affects you. Suffice it to say here that when the hectic bargaining and arguing in the back rooms was all over, the staffs and executive committees of both CATA and the NCTA felt that the deal would not adversely affect our membership from the operational standpoint and it would help the industry in other ways. That is what you ask your associations to do for you — make such value judgments. And that’s what we have done. Will everyone be happy with it? No. However, given all of the circumstances we decided it was the right thing to do right now. Here’s why.

The cable industry found itself

in a very interesting situation following the Quincy/Turner Court of Appeals decision in the middle of ‘85 that the FCC’s “must carry” rules were clearly unconstitutional. We had been arguing that point for over 12 years and the Court finally said in no uncertain terms that we were right. However, the Court did not specify which standard of First Amendment protection we were ultimately subject to. It could be either the “O’Brien” standard, which we have explained in these pages before — that standard would allow the Commission to craft new rules so long as they met a specific public policy objective, were the least intrusive rules possible, and did not greatly impinge on the First Amendment rights of cable operators — or, the



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Court said, cable may qualify for the "Miami Herald" standard of protection in which case virtually no rule would pass constitutional muster.

Since the Commission's old rules were so far out of bounds, the Court said it did not have to decide which standard applied to cable, because even under the less rigorous "O'Brien" test the rules failed. It suggested that cable may be entitled to the more stringent "Miami Herald" protections, but specifically said it was not going to decide that issue then. The Court also invited the Commission to try its hand at adopting new rules to see if they fit under the constitutional standards. And finally, the Court said it expected to review any new rules.

The broadcasters took the Quincy/Turner case to the Supreme Court and asked for a review of the decision. It is important to remember that the Supreme Court has not decided, one way or the other, whether it will review that case. So we are in somewhat of a limbo with regard to the legal status of cable in relation to the extent of our First Amendment rights. There is no question any more that cable is a First Amendment speaker. The problem is that different First Amendment speakers (newspapers, television stations, radio, a person in her own home, or a person in a crowded theatre, for instance) have different First Amendment standards applied to them. What the government is not allowed to do in one situation regarding "free speech" it may be allowed to do in another situation depending on the standard applied.

We do not yet know what standard applies to cable. The Supreme Court is already looking at a cable/First Amendment case in a very different context: The Preferred Case, dealing with the right to get a franchise in order to be a speaker in the first place is now before the Court. Most analysts believe the Court will not decide one way or the other on Quincy until the arguments are at least heard in Preferred.

We know this is complicated, but in order to understand why a "deal" was struck, you have to understand a lot of the circumstances leading up to the decision. Another factor, aside from the uncertain legal situation was the political one. It, naturally, played a major role in CATA's deciding to do what we did.

As we have repeatedly said, there is no legal or logical linkage between the FCC's "must carry" rules and the Copyright compulsory license. Just review the last few issues for a full-blown explanation of that position. However, one thing is very clear: law and logic are not necessary ingredients when it comes to political decisions on Capitol Hill! There is no question that cable's compulsory license is coming under increasing pressure in Congress. Does that matter? There are those who would argue that we should just scuttle the compulsory license over a period of years and that it would make little if any difference. The industries involved would just have to create a different mechanism to do the same thing. But for now the decision in the cable industry appears to be that

we should protect the compulsory license. As a matter of fact, it appears that the major other player in the copyright debate, the MPAA, may just agree with us on that point! Again, look at the last issue for a full explanation of the copyright negotiations aimed at regularizing the copyright situation and you will see that "flat fee" approach we are discussing anticipates the retention of the compulsory license. Now all of that work would be jeopardized if the broadcasters continued to "poison the well" on Capitol Hill regarding anything having to do with cable, and particularly the compulsory license.

Does this mean that we thought the compulsory license was in danger of being eliminated immediately? No. Not even in the next few years. Certainly we would have had to spend time and money defending the current law, but our judgment is that we would have been successful in any such defense. Remember, it is always easier to kill a bill than to pass one. In this case the broadcasters would have had to introduce a bill to get rid of the compulsory license. While our support on that issue is slowly waning (mainly due to the erroneous perception of a "link" between the license and "must carry") we don't think we would have lost an all out fight anytime soon. But that logic goes both ways. If we want to regularize the copyright situation and get away from the crazy CRT rulings we are suffering under right now, we would have to get our own bill (along with the MPAA, of course) through Congress. In that situation ►

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it is the broadcasters who have the easier time of simply being the "spoiler". And they informed us in no uncertain terms that that is exactly what they would do. They intended to "spoil" just about anything cable wanted to accomplish on Capitol Hill — be it a new copyright law, or a correction of the pole attachment legislation, or modifications to the tax proposals, or anything else.

The point was that the broadcasters were saying that the theory of "must carry" was so important to them that they would sacrifice just about everything else if they could not get some sort of "must carry" back. This may not sound very logical — indeed, we don't even think it sounds very bright! But that is what they set about to do — even at the expense of hurting their own interests! We couldn't ignore their "kamikaze" stance, for, logic or no, they looked very much like they were intent on killing themselves in the long run! Of course, to be fair, you have to understand that the broadcasters are convinced that if there is no "must carry" rule they will be taken off cable systems! No matter how much we have tried to convince them (even to the point of offering long-term nominal-fee carriage contracts) that WE are not crazy, that did not satisfy them. They are so used to government protection that they did not psychologically operate without it. It is in that spirit that they approached negotiations for a "must carry" deal.

The cable industry never said we would not talk about a "must carry" compromise. We repeatedly

said that any such talks, however, had to center on a logical public policy rationale for any such rules and that they had to at least have some constitutional rationale as well. The problem we have repeatedly pointed out is that even if those two basic criteria, required by the Court, are met, there is a third that we don't think anyone can meet: there has to be some factual showing that there is a need for the rules — that is, that without them broadcastING would be in danger. No one has ever been able to show that, and we don't think they ever will. That comes back to reality.

In any event, as time went on and Capitol Hill put pressure on the FCC to attempt a new rule-making on "must carry" (you may recall that the Commission, following the Quincy decision, said that it would not appeal nor would it attempt to write a new rule because it did not think it could create one that would meet legal muster) the Commissioners called for comments and lots of trees were killed to supply the reams of paper that descended on FCC headquarters. The positions of the broadcasters and the cable folks were predictable. What was far more interesting was that the National Telecommunications and Information Administration (NTIA), representing the Reagan Administration, and the Justice Department also filed. They both basically said what CATA said: There is no justification for a rule, and it is hard to see how any national "must carry" rule can be found to be constitutional. Justice was even more blunt. They said it

simply shouldn't be done. They acknowledged that they did not like the compulsory license either, but that had nothing to do with "must carry" — the two are not legally or logically linked!

The broadcasters realized that there was little left for the Commission to do. The law and logic was on the side of cable and, left to its own devices, the Commission would likely not adopt a new "must carry" rule. The only way, they concluded, that anything could be done is if there was an "agreement" between broadcasting and cable. The political pressure cooker was turned to high. Artificial time deadlines for "agreements" were set, key members of Congress were clued in to all the happenings, and we were off and running in another saga that could only happen in Washington. Now, you might ask, why should cable play in such an environment? Well, the answer is both simple and simplistic: we have to live in this environment too! It may not make sense, it may be contrary to what the Courts are telling us our rights are — and it may not even be the smartest thing for our "adversaries" in the long run. But we didn't pick the playing field, we just have to play the game to the best of our ability.

We think we did very well. The first requirement cable put down for any "deal" was that it have at least some internal logic. There had to be a public policy rationale that we could live with — not one that just mouthed such porridge as "localism" or that broadcasting was the "principal" form of video transmission. As you can see from



the very brief explanation of the public policy rationale in the agreement, we have come up with something that acknowledges cable's equal status.

The second requirement was that constitutionally any rule had to leave as much discretion as possible in the hands of the cable operator. Again, look at the agreement and you will see that we have come a long way in that direction.

Finally, we wanted to make sure that any rules would not affect the way we anticipated the cable industry would act in any event — rules or no rules. We think that has been accomplished to! Now you might ask, if that is the case, why do you need rules — since the operators will do it anyway! Don't ask us — ask the broadcasters — they are the ones who are politically insisting that all this nonsense take place. We think these are "solutions" in search of a problem! But never mind, politically you can see that cable had to, and is being cooperative. That is how, and why we got to where we are today.

So now what? Well, this "compromise" will now be presented to the Commission. The Commissioners have already been briefed on it and they have serious concern as to whether it will meet court muster. So do we. But the broadcasters seem to think it is going to be just dandy with the Court. Only time will tell. Clearly if the Commission adopts this proposal it will be reviewed by the Court. What the Court will say, we do not know. We do know, however, that from our perspective while

this is a pragmatic political solution to a problem we faced, we have not in any way offered assurances to anyone that we believe it will pass a court test, any more than Congressional rules of the same type would! Even if the lesser "O'Brien" standard applies to cable, this proposed rule, it seems to us, is subject to serious challenge. First, an A/B switch would basically accomplish the same thing, and the switch is a far less intrusive way of accomplishing the goal. Second, there is still no proof that without the rule broadcasting would be in any danger! That is, the public policy objective would be met with or without the rule! But these are problems we have pointed out to the broadcasters and to the FCC and it is now up to them to decide what they want to do.

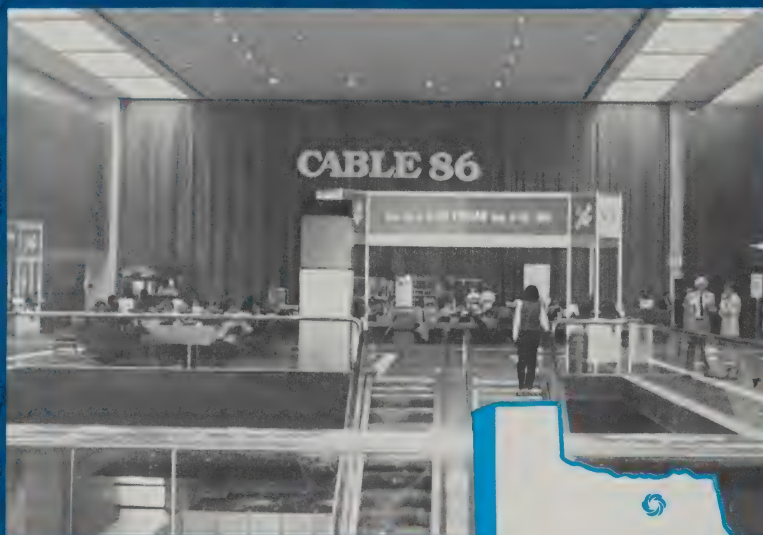
Because responsible representatives and lawyers on both sides differ as to the viability of these proposed rules, one thing the Commission could do is simply adopt them with a statement that they don't really know whether they will be acceptable to the Court, but that the only way to find out is to test them. Another approach is for the Commission, if it has the political will, to simply say these rules don't make sense legally or logically and not adopt them — deal or no deal. A third approach would fall somewhere in the middle with the Commission adopting a different approach that would accomplish most of the same result as this "compromise", but with possibly a better chance of court passage. Long-time cable pioneer Dick Leghorn, a First

Amendment scholar, has proposed that the Commission adopt an A/B switch rule combined with a prohibition on the charging by cable operators for carriage of "local" signals. That "Leghorn" rule would pretty much cover the same ground as the "deal" does and may be a viable substitute for it. But none of this is for us to decide at this point. We will just have to await developments.

Politically, the broadcasters have agreed, as part of this "deal" to go up to Capitol Hill and seek the withdrawal of all the "must carry" bills that had been floating around. That just clears out the underbrush since those bills were not likely to go anywhere anyway — the Justice Department would have told Congress the same thing it told the Commission, that they were not constitutional! More importantly, the broadcasters are ending their incessant attacks on the compulsory license and they have agreed not to interfere with the passage of any modification of the copyright law that we might reach with the MPAA that could be translated into law. That will make our jobs a lot easier should we reach such an agreement. (See note in this issue on the status of those talks) In sum, the cost to us in terms of acceptance of the terms spelled out here seemed to be well worth the benefits we gain.

What do we lose? Well, theoretically we are giving up our "absolutist" claim to complete First Amendment protection by acknowledging that there may be a way some encroachment on our

*(con't. on page 41)*

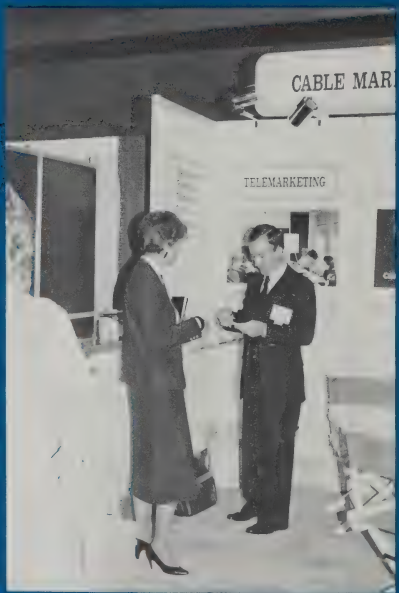


**CABLE**

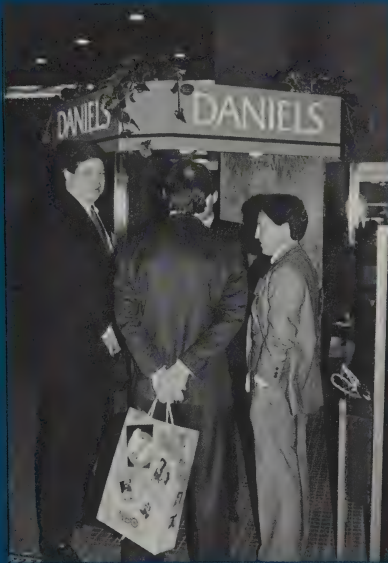
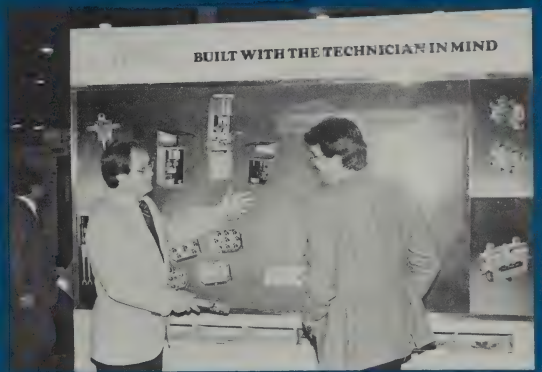
NCTA

**86**

Dallas, Texas



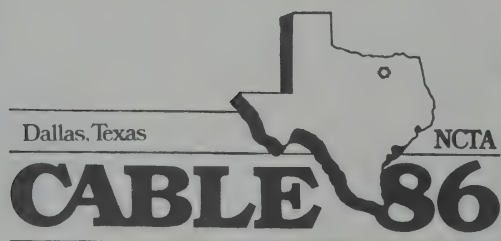




WRAP UP



# Dallas




## WRAP UP

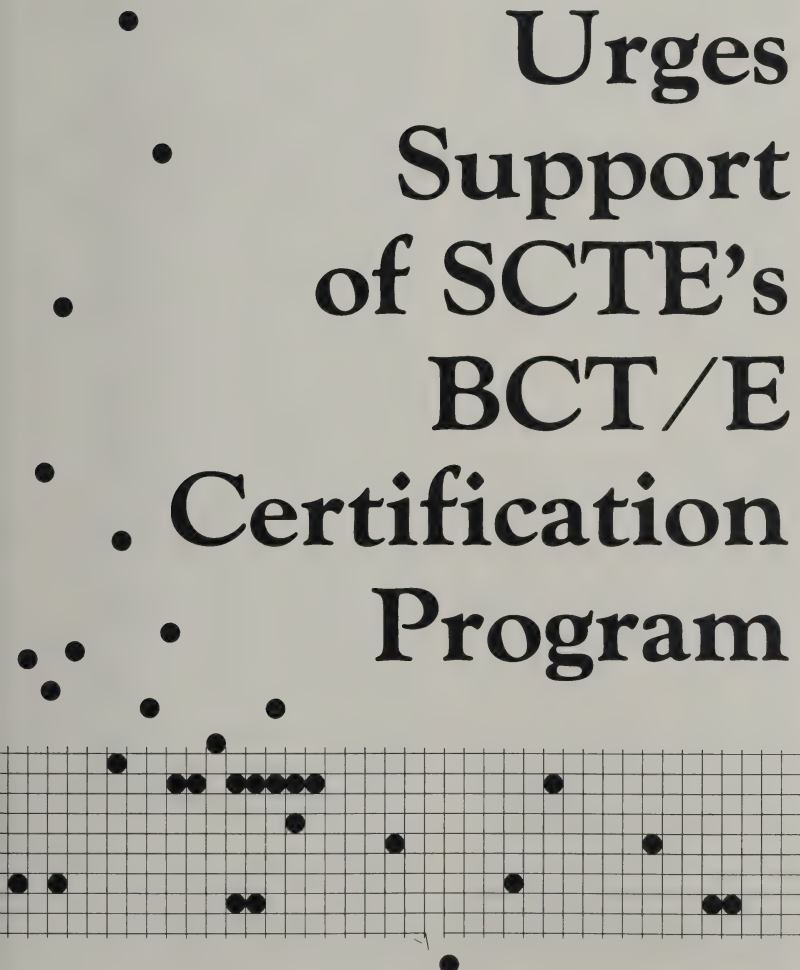




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# NCTA Chairman Edward Allen Urges Support of SCTE's BCT/E Certification Program



In an open letter to the cable television industry, Edward M. Allen, Chairman of the National Cable Television Association and President of Western Communications, Inc., urged System Managers to lend their full support to the Society of Cable Television Engineer's Broadband Communications Technician/Engineer Professional Designation Certification Program. The BCT/E program, designed to replace the FCC Radio Telephone License for the cable industry, provides technical training and certification in a number of specific areas including distribution, preventive maintenance, headend operation, data transmission, and subscriber terminals. SCTE has stepped into the gap left by governmental deregulation by developing the BCT/E Certification Programs to test the ability and competence of industry personnel and to identify knowledgeable individuals within the CATV industry. Mr. Allen stressed the importance of supporting SCTE's technical training, "As our industry moves inexorably from simple CATV service to increasingly complex broadband communication service, we must provide the training and knowledge necessary to install and maintain the services we provide ... By encouraging participation, the system benefits from having a knowledgeable and competent employee and the individual benefits from the training and recognition the BCT/E certificate represents."

The BCT/E Certification Pro-



gram was developed by SCTE for several important reasons: to raise the professional status of technicians and engineers by providing standards of professional competence in the practice of broadband communications engineering, to recognize those who meet these standards, to encourage continuing technical education and professional development, and to assist management in assessing the competency of personnel for technical positions.

After years of development, the first BCT/E examination was administered to SCTE members at the Society's 1985 Cable-Tec Expo. Since then, over 300 technicians and engineers have participated in these examinations, which are administered at SCTE Chapters and Meeting Groups across the country. These local groups, which hold regular bimonthly technical training seminars featuring presentations by respected industry leaders, offer special BCT/E preparatory courses prior to the administration of the exam at that location. BCT/E exams will also be administered this June in Phoenix at Cable-Tec Expo '86.

Mr. Allen said, "I strongly encourage the industry to support the SCTE in its knowledge that will allow us to provide the technical expertise necessary to carry us into the next decade."

For more information on the BCT/E Certification Program, SCTE membership, and upcoming exam dates and locations, please contact the SCTE National Headquarters at (215) 363-6888.

## AN OPEN LETTER TO THE CABLE TELEVISION INDUSTRY

Since its inception almost forty years ago, the cable television industry has been plagued by a shortage of qualified technical personnel. As our industry moves inexorably from simple CATV service to the increasingly complex broadband communication service, we must provide the training and knowledge necessary to install and maintain the services we provide.

Formal training in electronics, while desirable, does not fill the need for specialized training in "cable television". Only a few institutions provide any kind of a structured curriculum for the development of present and future technical personnel for our industry.

In the past, the widely recognized FCC license was used as a recruiting tool to find personnel with the capabilities and responsibility to handle the expensive plant our industry has put in place. Recently, however, the FCC has begun a program of deregulation which has rendered the FCC license obsolete. Individual trade organizations have stepped into the gap left by the government and have begun to develop specialized certification programs designed to test the abilities and competence of their own members.

The SOCIETY OF CABLE TELEVISION ENGINEERS has

developed such a certification program for the broadband cable industry. The Broadband Cable Technician/Engineer or BCT/E program provides technical training and certification in a number of specific areas including distribution, preventative maintenance, headend operation, satellite operation, local area networks and subscriber relations. The training for each category is extensive and the test is comprehensive.

System Managers must recognize the need for trained technicians in our industry and lend their full support to the Society's efforts. In many of the smaller systems that do not have a formal in-house training program, the SCTE's training seminars have become the only source of technical training. Systems should encourage their employees to join the SCTE and then provide them with the necessary time off to attend the seminars. By encouraging participation, the system benefits from having a knowledgeable and competent employee and the individual benefits from the training and the recognition that the BCT/E certificate represents.

I strongly encourage the industry to support the SCTE in its endeavors and to encourage their employees to seek the knowledge that will allow us to provide the technical expertise necessary to carry us into the next decade.

*Edward M. Allen*  
Chairman  
National Cable Television  
Association





First Amendment freedoms could be legal. However that is theoretical only. If, in fact, our First Amendment rights are absolute as some cable operators and their attorneys claim, then the court will uphold them as such. We cannot make "deals" that give away constitutional rights. The discussion really boils down to whether the Court will consider any "deal" we make as "coloring" its view of what our First Amendment rights are. That is, will the "deal" influence the Court's thinking. We think not, but you can never tell. We will all just have to wait and see.

The weeks leading up to the acceptance of this compromise have been hectic. The cooperation and close coordination between the NCTA and CATA has been excellent. Between the two Associations, we represent the broad spectrum of cable operators nationwide, and we do so looking at the issues from intentionally different perspectives. The decision to reach an agreement was a difficult one, particularly given the legal "high ground" we are on. But, frankly, the job of the professionals of both Associations is to advise our members as to the political as well as legal reality of any given situation. That's what we did here, and now you know not only the "how" and the "what", but also the "why". If you want even more details, please feel free to call the cata office.

## Copyright Update

There is little to add this month to the details we went through

with you in the last issue. The structure of a copyright settlement that the cable industry may find acceptable remains the same. We were hopeful last month that an agreement could be reached within 30 days. That, clearly, has not happened. The reason is that some of the members of the MPAA apparently have problems with the proposal as it currently stands. We are not sure what those problems are, however if they hinge on the issue of "must carry" and the broadcasters, the situation has changed massively, as you have already read, in the past few days so maybe the logjam has ended. Naturally there are some in the cable industry who are also unhappy with the proposed deal. They are generally the older, larger grandfathered systems and those that have lower priced basic tiers. In either case those folks will wind up paying more under the "flat fee" proposal. But again, as we explained, overall the industry gains from regularizing the rates and those who presently have low basic rates are enjoying a short-term gain only. The copyright proposal is a long-term solution. There is no guarantee that any agreement will be reached, but we suspect that elimination of "must carry" as an issue should help it along. We will see.

## More Consumer Educational Material On Scrambling

The CATA effort at distributing material designed to educate potential earth terminal purchasers regarding the scrambling situation

has been remarkably successful. The educational pieces that we designed late last year and distributed nationwide have been very well received. Hundreds of newspapers reaching millions of consumers have run the pieces. As part of the program CATA offered "camera ready" copy of the educational pieces to any CATA member who requested them. In cooperation with the Texas Association we supplied hundreds of copies of both pieces for distribution to all Texas operators.

The results were so good we decided to continue the campaign. But before we got our next piece into print we saw one done by HBO in the same format. It was accurate and well done. So we contacted HBO and sought permission to distribute it. They not only said yes, they paid for the camera ready copies! Thanks HBO. Hundreds of copies are already in the mail to Texas operators again. Bill Arnold, the guiding light behind the Texas effort, feels they are well worth the effort of getting into the local papers. So do we. If you want photo ready copy of the article printed here, let us know and we will send it to you. If you are a state association leader and want your association to distribute them state wide, we have enough for you too! Just give Jim Ewalt a call. He is coordinating the program. We have additional scrambling promotional material at the office which was prepared by the Arizona Association. They, too, have indicated that they will supply it to interested cable operators. Give us a call for details. □

# S.h.o.w.c.a.s.e

## JERROLD INTRODUCES VCR CONTROL UNIT-MODEL VCU

**Jerrold Division of General Instrument Corporation** has introduced a video switching device that reduces the cable subscribers' problems in connecting and controlling home video entertainment equipment.

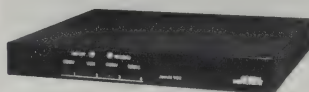
The new Jerrold VCR Control Unit (Model VCU) lets subscribers interface their video cassette recorders, television sets and set-top terminals to the cable and to each other. The switching device eliminates the need for external components such as splitters, A/B switches and the maze of wires often associated with hooking up video equipment. It is a sleek, low profile package that fits neatly under a converter and is compatible with Jerrold and all other converters.

The VCU features clearly labeled, user-friendly selector buttons for easy access to video programming. By selecting the "watch" or "record" modes on the control device, subscribers can direct the desired input signals to the television set and VCR. The VCR Control Unit provides subscribers with the option of viewing any scrambled channel while recording a clear (basic) channel, viewing and recording the same scrambled channel, viewing only or recording only, all without changing the TV tuner.

Jerrold's VCR switching device offers advanced features such as gain control for improved picture quality. This capability overcomes the signal loss often caused by the introduction of video cassette recorders. This switchable gain control lets subscribers choose the optimum picture quality for viewing.

Another feature of the VCU is a convenience outlet located on the back of the chassis and a piggy-back wall plug that can be used to plug in a VCR or other video equipment. This extra plug helps to reduce the number of wall outlets required, an important consideration with today's home video entertainment systems.

"With VCR sales expected to soar during the holiday season, this switching device is a must for those who want to gain maximum viewing flexibility by linking their VCR's with the cable system," said Pete Morse, vice president of



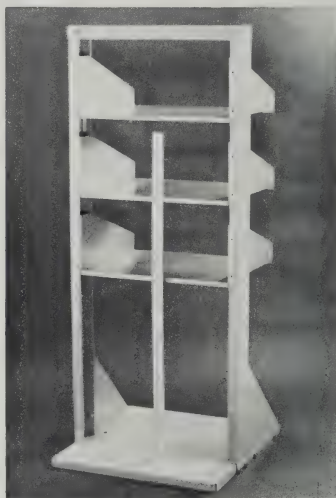
*New Jerrold VCR Control Unit  
(Model VCU)*

marketing for the Subscriber Systems Division. Morse said the Jerrold VCU will be available in time for the holiday season and will be priced in the \$40 range.

General Instrument Corporation is the industry leader in cable TV electronics and wagering systems, and specializes in semiconductor, satellite and other electronic systems for government and industry. The Company's primary strategies are directed toward communications systems and computer-related products. The common stock of the Company (NYSE: GRL) is listed on the New York, Midwest, Pacific and London Stock Exchanges. •

## CWY FEATURES DESCRAMBLER EQUIPMENT RACK

CWY Electronics has introduced a new 48-inch high equipment rack which is ideally suited for descrambler headend expansion. Comparable to CWY's popular 72-inch model, the new equipment rack is priced well below competitive racks, assembles easily and can be shipped UPS.



*RR48 Descrambler Equipment Rack*

The RR48 rack provides 45.5 inches of rail space with 26 rail spaces. Panel rails are drilled and tapped for 10-32 screws on EIA/RETMA rack spacing of .50" — 1.25". Like the 72-inch model, the new RR48 model is constructed of 11-gauge formed steel with a standard ASA 61 gray baked enamel finish. The new rack sells for \$75, and a number of rack accessories are available. For further information, contact: CWY Electronics, P.O. Box 4519, Lafayette, IN 47903, 317-448-1611, or call toll-free: 1-800-428-7596. •



## NEW AURAL/VISUAL SAW FILTERED PROCESSOR INTRODUCED BY BLONDER-TONGUE

**Blonder-Tongue Laboratories, Inc.**, Old Bridge, NJ, has introduced its new SAVP SAW filtered aural/visual processor. The SAVP (Stock No. 5983) is a heterodyne processor used to put off-air broadcast VHF and UHF channels onto CATV, SMATV, and MATV systems. Standard SAVP output channels are VHF (2-13), Midband (A-1), and Superband (J-W).

A notch trap is used for adjustment of the aural carrier level permitting the transmission of BTSC (MTS) Standard composite stereo signals.

Dual SAW filters are used to provide a high degree (typically 70 dB) of adjacent channel rejection. The SAVP has external I.F. loop thru which permits the insertion of scrambling equipment for



*New Blonder-Tongue SAVP A/V SAW Filtered Processor*

highly secure premium programming applications.

Field replaceable heterodyne converter boards make it possible for qualified service personnel to change input and/or output channels of the SAVP quickly and simply. An LED low input warning

indicator, an aural level adjustment and a combined A/V output level control are provided on the front panel for easy adjustments.

**For more information contact  
Blonder-Tongue at  
(201) 679-4000**

## ANNOUNCEMENTS FROM WAVETEK

Wavetek, in an effort to provide continuing customer and product support, offers system sweeping and system analysis seminars on the second Friday of every month. The basics of system sweeping and also the operation of the Wavetek 1855B/65B sweep recovery system are covered. In addition, system analysis and the operation of the Wavetek 1880/81 are presented. Participants benefit from a hands-on session with the test equipment on a test cable system set up in Wavetek's

application lab.

The seminars are held at the Wavetek Indiana factory in Indianapolis and are free of charge. Class size is limited. To reserve a space, call Steve Windle at 317-788-5980.

Also, Wavetek is pleased to announce the opening of the first of several authorized regional service centers. NCS Industries, Inc., Willow Grove, PA, is fully authorized by Wavetek to support CATV and Broadband test equipment products manufactured by Wavetek Indiana, Inc. Services will in-

clude warranty repair and calibration by factory-trained technicians, and will provide local spare parts support.

Wavetek believes that service centers located throughout the country will improve the level of service to its customers significantly. Five service centers are currently planned throughout the United States and Canada.

For further information contact: NCS Industries, 2255 East Wyandotte Avenue, Willow Grove, PA 19090, Telephone: 1-800-523-2342.

# S.h.o.w.c.a.s.e

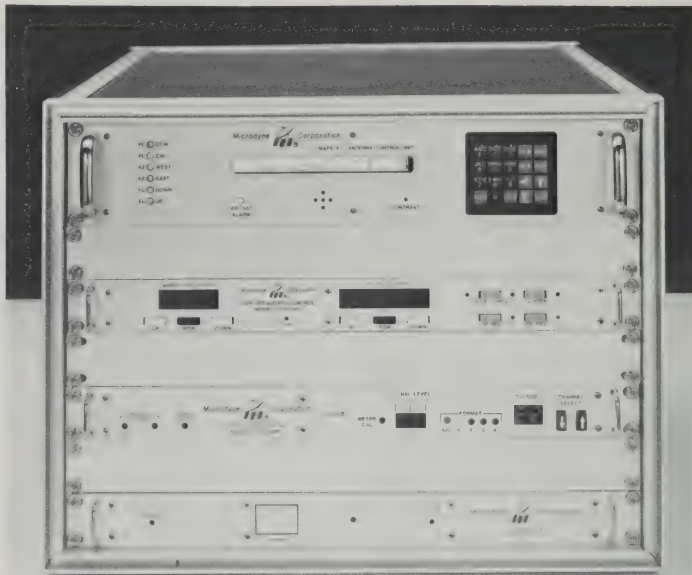
## FIRST FULLY AUTOMATED SATELLITE TERMINAL AVAILABLE ONLY FROM MICRODYNE

**Microdyne** announced today the availability of the M.A.T. (Microdyne Automated Terminal), the first fully automatic satellite terminal that eliminates manual adjustment of the antenna, allows program scheduling in advance and automatically selects the C- or Ku band frequency band, polarity, transponder channel and audio subcarrier. Two hundred presets can be stored, 32 of which can be timed events.

The M.A.T. downlink system consists of a 12-foot motorized polar-mount antenna (5- or 7-meter antenna optional), 96 channel C-/Ku-band broadcast quality satellite receiver with appropriate downconverters, microprocessor controller and pre-wired equipment console. The system is compatible with all major scrambling systems.

Microdyne delivers, installs and calibrates the M.A.T. Once trained by Microdyne, an operator can quickly and easily program the system to receive any frequency and format of every available existing, as well as future, commercial satellite. Because the M.A.T. is fully automatic, minimal training and staff are required for its operation. Using the RS-232 or parallel ports, the M.A.T. can be controlled by a computer or it can serve as a dumb terminal.

With the M.A.T., anyone can schedule programming in advance and react within seconds to any update transmissions from the satellite. Corporations, universities, hospitals, etc., can utilize this



*Microdyne's Automated Terminal provides fully automated reception of any satellite video programming. Call (904) 687-4633 for more information.*

economical, easy to use technology for video teleconferencing, training and internal broadcasts.

The M.A.T. will be previewed at

the NAB in Booth 3520. For a free brochure on the M.A.T., write or call Microdyne at P.O. Box 7213, 904-687-4633.

## MICRODYNE MAKES MODIFICATION INSTRUCTIONS AVAILABLE TO INSURE TOP PERFORMANCE WITH NEW DESCRAMBLER SYSTEMS

**Microdyne Corporation** has announced the availability of modification instructions that will insure top performance of TVRO systems using Microdyne receivers and the VideoCipher™ II descrambler.

Microdyne spokesman Earl Currier said that "All of our newest receivers are fully compatible with the VideoCipher II descram-

bling system. However, in some systems with older model receivers and low C/N ratios at the receiver, a minor modification may be necessary."

Modification instructions for the Microdyne receivers are available directly from Microdyne or through M/A Com Linkabit Customer Support.

Any questions regarding the compatibility between Microdyne receivers and the VideoCipher II should be directed to Microdyne Customer Support at (904) 687-4633.





## SSS CHANGES ITS NAME TO TEMPO ENTERPRISES, INC.

Effective March 3, 1986, TEMPO Enterprises, Inc. will be the new name of Satellite Syndicated Systems, Inc.

Satellite Syndicated Systems, Inc., which has been in existence since 1978, has introduced numerous products and services under separate names into the cable television and satellite communications marketplace. Company officials felt it was time to tie all of these various products together under one name to heighten the identity of the total corporation.

According to Edward L. Tylor, chairman, president of CEO of the new TEMPO Enterprises, the Company was ready for a fresh, new corporate look. "We've been

a public company for almost three years now and during that time we've experienced tremendous growth," Taylor explained. "While re-evaluating certain business areas we decided the time had come to consolidate and create a more unified corporate image. We felt the best way to do this was to change our name and update our overall identity."

**TEMPO** is that new name and will be used for all company products and services. Another, more descriptive name will accompany TEMPO and serve to distinguish one product from another. Therefore, the name TEMPO Television replaces SPN, Satellite Program Network; TEMPO Sound is the new name given to Star Ship Stereo and TEMPO Cable is now

what was formerly known as Cable Southwest.

Other corporate affiliates, subsidiaries and divisions are also taking on new names including: TEMPO Data, previously known as CableText; TEMPO Productions, formerly named SPN Productions and TEMPO Travel, a full-service travel agency known as SPN Travel.

TEMPO will make its formal debut, including a new trade show exhibit, literature and promotional items at the National Cable Television Association convention March 15-18 in Dallas.

TEMPO Enterprises, Inc. is a NASDAQ National Market Listing which is traded over-the-counter under the new stock symbol TMPO. •

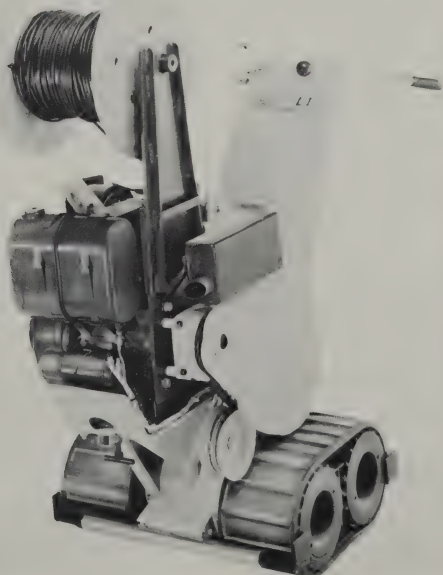


## "REEL CARRIER ATTACHMENT"

LINE-WARD CORP. introduces a "REEL CARRIER ATTACHMENT" for its well known L-1 & L-2 Cable Line Layers. This should provide a higher productive method to install underground housedrops, particularly when installing a whole sub-division. Unit can be slipped on or off instantly.

For more information contact Jerry Ward at 157 Seneca Creek Road, Buffalo, New York 14224 or call (716) 675-7373.

"REEL CARRIER ATTACHMENT"



# Associate Roster

Note: Associates listed  
with \* are Charter Members

**Jim Ackerman & Associates, Inc.,**  
1800 N. Meridian St. #410  
Indianapolis, IN 46202  
317-923-2353  
(S9, Brokerage House)

**Alpha Technologies**  
1305 Fraser St. D-G,  
Bellingham, WA 98225  
206-671-7703  
(M9, Standby Power  
Supplies)

\* **Anixter Communications,**  
4711 Golf Road,  
Skokie, IL 60076  
312-677-2600  
(D1)

**Arts & Entertainment Network**  
555 Fifth Avenue  
New York, NY 10017  
212-661-4500  
(S9)

**The Associated Press**  
50 Rockefeller Plaza,  
New York, NY 10020  
212-621-1513  
(S9 Automated News  
SVC)

**Automation Techniques,**  
1550 N. 105th E. Ave.  
Tulsa, OK 74116  
918-836-2584  
(M9)

**Blonder-Tongue Labs, Inc.,**  
1 Jake Brown Rd.,  
Old Bridge, NJ 08857  
201-697-4000  
(M1, 2, 4, 5)

**Budco, Inc.,**  
4910 East Admiral Place,  
Tulsa, OK 74115  
1-800-331-2246  
(D9, Security &  
Identification Devices)

**Cable Constructors, Inc.,**  
Iron Mountain, MI 49801

**CATEL,**  
4800 Patrick Henry Dr.,  
Santa Clara, CA 95054  
408-988-7722

**Capscan, Inc.**  
P.O. Box 36,  
Adelphia, NJ 07710  
1-800-CABLETV or  
222-5388  
(M1, 3, 4, 5)

**CBN Cable Network,**  
CBN Center  
Virginia Beach, VA 23465  
804-424-7777  
(S9)

\* **C-Cor Electronics, Inc.,**  
60 Decibel Rd.,  
State College, PA 16801  
814-238-2461  
(M1, 4, 5, S1, 2, 8)

**CWY Electronics**  
405 N. Earl Ave.,  
Lafayette, IN 74904  
1-800-428-7596  
(M9, D1)

**Cable Graphic Sciences**  
7095 N. Clovis Ave.,  
Clovis, CA 93612  
209-297-0508  
(M9 Character  
Generators)

**Communications Equity Associates,**  
851 Lincoln Center,  
5401 W. Kennedy Blvd.,  
Tampa, FL 33609  
813-877-8844  
(S3)

**ComSonics, Inc.,**  
P.O. Box 1106,  
Harrisonburg, VA 22801  
1-800-336-9681  
(M8, 9, S8, 9)

**The Disney Channel**  
500 S. Buena Vista  
Burbank, CA 91521  
213-840-5080  
(S4)

**Ditch Witch,**  
P.O. Box 66,  
Perry, OK 73077  
1-800-654-6481  
(M9)

**The Drop Shop Ltd., Inc.,**  
Box 284,  
Roselle, NJ 07203  
1-800-526-4100 or  
1-800-227-0700 (West)  
(D3, 4, 5, 6, 7, 8, 9,  
M5, 6, 7, 8, 9 Plastics)

**Durnell Engineering Inc.,**  
Hwy 4 So.  
Emmetsburg, IA 50536  
712-852-2611  
(M9)

**Eagle Com-Tronics, Inc.,**  
4562 Waterhouse Rd.,  
Clay, NY 13041  
1-800-448-7474  
(M9, Pay TV Delivery  
Systems & Products)

**Eastern Microwave, Inc.,**  
3 Northern Concourse,  
P.O. Box 4872,  
Syracuse, NY 13221  
315-455-5955  
(S4)

**Electroline TV Equipment, Inc.,**  
8750-8th Ave.,  
St. Michel,  
Montreal, Canada  
H1Z 2W4  
514-725-2471  
(M4, 5, 7, 9, D7, 9)

**Electron Consulting Associates,**  
Box 2029,  
Grove, OK 74344  
918-786-5349  
(M2, D1, S1, 8)

**ESPN,**  
ESPN Plaza,  
Bristol, CT 06010  
203-584-8477  
(S9)

**Charles Greene & Assoc.**  
a division of  
**AMCOM, Inc.,**  
Bldg. E, Suite 200,  
5775 Peachtree-  
Dunwoody Rd., N.E.,  
Atlanta, GA 30342  
404-256-0228  
(S9, Brokering &  
Consulting)

**Group W Satellite Communications**  
41 Harbor Plaza Dr.,  
P.O. Box 10210,  
Stamford, CT 06904  
203-965-6219  
(S4)

**Harmon & Company**  
5660 S. Syracuse Circle  
Greenwood Plaza,  
Englewood, CO 80111  
303-773-3821  
(S3)

**Heller-Oak Communications**  
105 W. Adams St.,  
Chicago, IL 60603  
1-800-621-2139 \* 7600  
(S3)

**Home Box Office, Inc.,**  
12750 Merit Dr.  
Dallas, TX 75251  
214-387-8557  
(S4)

**Ind. Co. Cable TV, Inc.,**  
P.O. Box 3799  
Hwy. 167 N,  
Batesville, AR 72501  
501-793-4174  
(D1)

\* **Jerrold Division General Instrument**  
2200 Byberry Road  
Hatboro, PA 19040  
(215) 674-4800  
(M1, 2, 4, 5, 6, Converters)

\* **Jerry Conn Associates, Inc.,**  
P.O. Box 444,  
Chambersburg, PA 17201  
1-800-233-7600  
1-800-692-7370 (PA)  
(D3, 4, 5, 6, 7, 8)

**KMP Computer Services, Inc.,**  
135 Longview Dr.,  
Los Alamos, NM 87544  
505-662-5545  
(S4, 5)



**Distributors**

D1—Full CATV equipment line  
 D2—CATV antennas  
 D3—CATV cable  
 D4—CATV amplifiers  
 D5—CATV passives  
 D6—CATV hardware  
 D7—CATV connectors  
 D8—CATV test equipment  
 D9—Other

**Manufacturers**

M1—Full CATV equipment line  
 M2—CATV antennas  
 M3—CATV cable  
 M4—CATV amplifiers  
 M5—CATV passives  
 M6—CATV hardware  
 M7—CATV connectors  
 M8—CATV test equipment  
 M9—Other

**Service Firms**

S1—CATV contracting  
 S2—CATV construction  
 S3—CATV financing  
 S4—CATV software  
 S5—CATV billing services  
 S6—CATV publishing  
 S7—CATV drop installation  
 S8—CATV engineering  
 S9—Other

**Katek, Inc.,**  
 215 Wood Ave.,  
 Middlesex, NJ 08846  
 201—356-8940

**LRC Electronics, Inc.,**  
 901 South Ave.,  
 Horseheads, NY 14845  
 607—739-3844  
 (M7)

**Larson Electronics, Inc.,**  
 311 S. Locust St.,  
 Denton, TX 76201  
 817—387-0002  
 (M9 Standby Power)

**Lifetime**  
 1211 Avenue of the  
 Americas  
 4th Floor  
 New York, NY 10036  
 212—719-7230  
 (S9, Programming)

**Lindsay America, Inc.**  
 P.O. Box 15775  
 1202 B West 19th St.  
 Panama City, FL 32405  
 904—769-2321

**Long & Aldridge**  
 1900 Rhodes Haverty Bldg.  
 134 Peachtree St.  
 Atlanta, GA 30043  
 404—681-3000  
 (S9, Law)

**MA/COM Cable Home  
 Group**  
 P.O. Box 1729  
 Hickory, NC 28603  
 1-800—438-3331  
 (M2, 3, 7, S2)

**Magnavox CATV Systems,  
 Inc.**  
 100 Fairgrounds Dr.,  
 Manlius, NY 13104  
 315—682-9105  
 (M2, 3, 7, S2)

**Meyer, Capel, Hirschfeld  
 Law Office**  
 306 W. Church St.  
 P.O. Box 577  
 Champaign, IL 61820  
 217—352-7941  
 (S9, Law)

**\* Microwave Filter Co.,**  
 6743 Kinne St., Box 103,  
 E. Syracuse, NY 10357  
 1-800—448-1666  
 (M9 Bandpass Filter)

**Panasonic Industrial, Co.,**  
 One Panasonic Way  
 Secaucus, NJ 07094  
 201—392-4109

**Power and Telephone  
 Supply Company, Inc.**  
 530 Interchange Drive  
 N.W.,  
 Atlanta, GA 30336  
 1-800—241-9996  
 (D1)

**Quality RF Services, Inc.**  
 850 Park Way  
 Jupiter, FL 33477  
 305—747-4998  
 1-800—327-9767  
 1-800—433-0107 (In  
 Florida)  
 (M4, S9)

**Regency Cable Products,**  
 4 Adler Dr.  
 East Syracuse, NY 13057  
 1-800—292-0220

**Riser/Bond Instruments**  
 formerly  
 Av-Tek, Inc.,  
 Box 188,  
 Aurora, NE 68818  
 402—694-5201  
 (M8)

**RMS Electronics**  
 50 Antin Place  
 Bronx, NY 10462  
 1-800—223-8312  
 1-800—221-8857 (Poleline)  
 (M4, 5, 6, 7, 9)

**Sadelco, Inc.,**  
 75 West Forest Ave.,  
 Englewood, NJ 07631  
 201—569-3323  
 (M8)

**Satellite Syndicated  
 Systems, Inc.,**  
 P.O. Box 470684  
 Tulsa, OK 74147  
 918—481-0881  
 (S9)

**Scientific Atlanta,**  
 P.O. Box 105600  
 Atlanta, GA 30348  
 404—441-4000

**Showtime/The Movie  
 Channel, Inc.**  
 1633 Broadway,  
 New York, NY 10019  
 212—708-1600  
 (S4)

**Studioline Cable Stereo**  
 11490 Commerce Park Dr.  
 Reston, VA 22091  
 703—648-3200  
 (S9, Audio Program)

**Telstar Marketing &  
 Consulting**  
 C.T.H."F" 2930  
 Blue Mounds, WI 53517  
 608—437-5460  
 (S9)

**\* Texscan Corp.,**  
 3102 N. 29th Ave.,  
 Phoenix, AZ 85017  
 602—252-5021  
 (M4, M5, M8, M9)

**\* Times Fiber  
 Communications,**  
 358 Hall Avenue,  
 Wallingford, CT 06492  
 1-800—243-6904  
 (M3)

**Tocom, Inc.,**  
 P.O. Box 47066,  
 Dallas, TX 75247  
 214—438-7691  
 (M1, 4, 9 Converters)

**\* Toner Cable  
 Equipment, Inc.,**  
 969 Horsham Rd.,  
 Horsham, PA 19044  
 1-800—523-5947  
 In PA 1-800—523-492-2512  
 also 1-800—523-5947 (PA)  
 (D2, 3, 4, 5, 6, 7, 8, S4, 5)

**Triple Crown  
 Electronics, Inc.,**  
 4560 Fieldgate Dr.,  
 Mississauga, Ontario,  
 Canada L4W 3W6  
 416—629-1111  
 Telex 06-960-456  
 (M4, 8)

**Turner Broadcasting  
 System,**  
 1050 Techwood Dr.,  
 Atlanta, GA 30318  
 404—898-8500

**TV Watch, Inc.,**  
 1819 Peachtree Rd. N.E.  
 Atlanta, GA 30309  
 1-800—554-1155  
 (S9)

**United Press International**  
 220 East 42nd St.,  
 New York, NY 10017  
 212—682-0400  
 (S9 Automated News  
 SVC)

**United Video, Inc.,**  
 3801 South Sheridan Rd.,  
 Tulsa, OK 74145  
 1-800—331-4806  
 (S9)

**USA Network**  
 303 East Ohio Street  
 Time & Life Bldg. Suite 2701  
 Chicago, IL 60611  
 312—644-5413  
 (S9)

**Viewstar, Inc.,**  
 705 Progress Ave.,  
 Unit 53,  
 Scarborough, Ontario,  
 Canada M1H 2X1  
 416—439-3170  
 (M9 Cable Converter)

**Vitek Electronics**  
 710 Narragansett Park Dr.  
 Pawtucket, RI 02861  
 401—724-4400

**Walsh, Walsh, Sweeney  
 & Whitney, S.C.**  
 P.O. Box 1269,  
 Madison, WI 53701  
 608—257-1491  
 (S9)

**\* Wavetek Indiana**  
 5808 Churchman,  
 Beech Grove, IN 46107  
 1-800—428-4424  
 TWIX 810—341-3226  
 (M8)

**Weatherscan,**  
 Loop 132,  
 Throckmorton Hwy.,  
 Olney, TX 76374  
 817—564-5688  
 (D9, Sony Equip. Dist.,  
 M9 Weather Channel  
 Displays)

**Western Towers**  
 Box 2040  
 San Angelo, TX 76902  
 915—658-6539/653-5291  
 (M2, 9 Towers)

**Zenith Radio Corp.,**  
 1000 N. Milwaukee Ave.  
 Glenview, IL 60025  
 312—391-8195  
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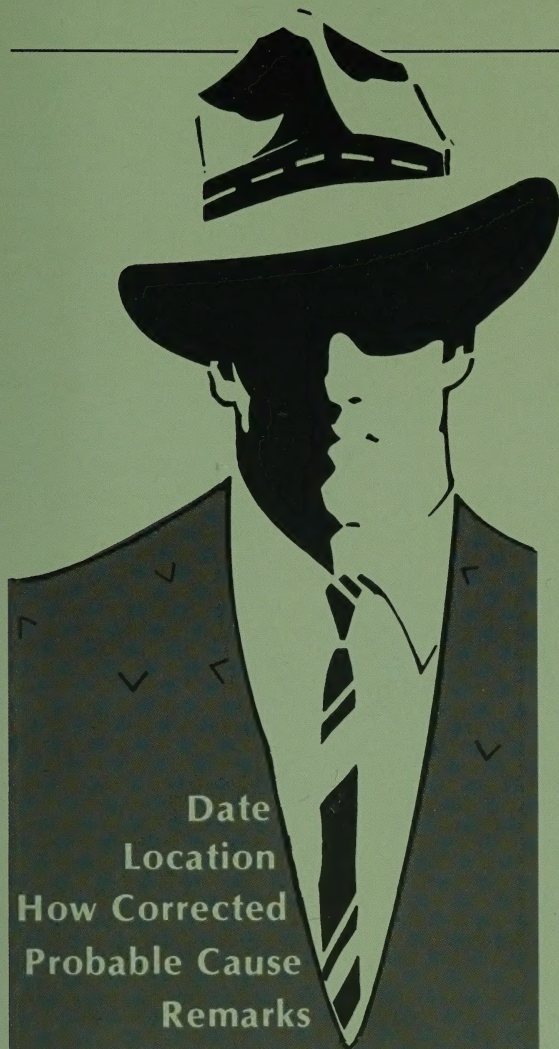
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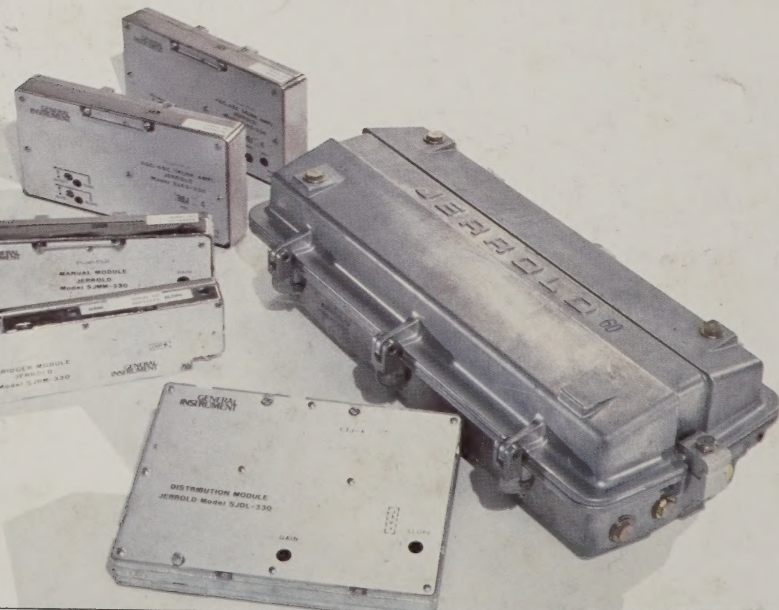
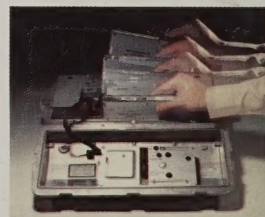
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